CALFED BAY-DELTA PROGRAM

NO-ACTION ALTERNATIVE AND CUMULATIVE IMPACT ANALYSIS SCREENING REPORT

CALFED
BAY-DELTA
PROGRAM

SEPTEMBER 18, 1996
SACRAMENTO

C-000876

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CHAPTER 1. INTRODUCTION AND BACKGROUND

PURPOSE OF THIS REPORT

The purpose of this report is to provide documentation for the screening process used to determine which projects should be included in the No-Action Alternative and the cumulative impact analysis for the Programmatic Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the CALFED Bay-Delta Program (CALFED). The No-Action Alternative will provide a baseline with which to compare the effects of CALFED action alternatives. The report provides a description of the process used to screen potential water projects and programs sponsored by various agencies that could affect State Water Project (SWP) or Central Valley Project (CVP) operations and future CALFED actions. The next phase of the CALFED process is to define operational and regulatory requirements and modeling assumptions for the No-Action Alternative.

PURPOSE OF THE NO-ACTION ALTERNATIVE

Both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) require that an EIR or EIS include an examination of a No-Project or No-Action Alternative (references to these alternatives will be combined and stated as the No-Action Alternative). The No-Action Alternative can be defined in different ways, but it is essentially a scenario of what would happen to the environment if the proposed action were not implemented and existing trends and conditions continued into the future. The purpose of the No-Action Alternative is to provide a baseline for assessing the environmental impacts of the proposed alternatives and to disclose to the public and decision makers the environmental consequences of those alternatives. It is important to remember that the No-Action Alternative is only the basis for comparison of the potential consequences of implementing the alternatives. Therefore, including an action in or excluding it from the No-Action Alternative is not, in any way, intended to be a judgment regarding the merits of that action or an assessment of the likelihood that the action will be implemented in the future.

PURPOSE OF THE CUMULATIVE IMPACT ANALYSIS

In a NEPA and CEQA evaluation, it is required that the preferred alternative be evaluated with the combined effects of the cumulative actions in a single analysis. Cumulative impacts are defined by NEPA and CEQA as incremental impacts on the environment that would result from the proposed project in combination with other related past, present, and reasonably foreseeable future

actions. The impacts of the related past and present actions will be identified as part of the discussion of existing conditions in the Programmatic EIR/EIS; therefore, this effort to identify a list of actions for the cumulative impact analysis focuses on potential future actions, particularly those that do not meet the criteria for inclusion in the No-Action Alternative.

PUBLIC WORKSHOP ON THE NO-ACTION ALTERNATIVE AND CUMULATIVE IMPACT ANALYSIS

CALFED staff conducted a public workshop on July 11, 1996, to describe the approach used in developing the existing conditions, No-Action Alternative, and cumulative impact analysis for the CALFED Programmatic EIR/EIS. The purpose of the workshop was also to seek input and gain consensus from interested parties on the proposed approaches to developing the No-Action Alternative and cumulative impact analysis. Responses to comments received at the workshop and letters sent to CALFED from various parties on the impact assessment approaches are provided in Appendix A. The workshop was beneficial for both the CALFED team and the stakeholders, providing for refinement of the list of projects and criteria used to identify projects for inclusion in the No-Action Alternative and cumulative impact analysis.

CHAPTER 2. PROJECTS TO BE INCLUDED IN THE NO-ACTION ALTERNATIVE AND CUMULATIVE IMPACT ANALYSIS

NO-ACTION ALTERNATIVE SCREENING PROCESS

CRITERIA USED TO DEFINE THE NO-ACTION ALTERNATIVE

NEPA and CEQA do not provide specific guidelines for selecting future actions to include in a No-Action Alternative. CALFED has focused on those future actions that could affect the physical features of the Bay-Delta system. Local actions will generally not be considered unless they are of sizable magnitude.

CALFED has used a set of screening criteria to determine which actions to include in the No-Action Alternative. Potential actions that met all applicable criteria are proposed to be included in the No-Action Alternative. Actions that did not meet all of the applicable criteria were considered for inclusion in the cumulative impact analysis. It is important to note that although the screening criteria are well developed and rigorous, CALFED may be required to use judgment, in some instances, in screening certain actions. The criteria that were used for determining whether an action should be considered for inclusion are the following.

Criterion 1: Has the Action Been Approved for Implementation? To be included in the No-Action Alternative, implementation of the action must have been approved by the project sponsor or by the ultimate authorizing agency. In the case of construction-related projects, this approval must include authorization for design and construction.

Criterion 2: Does the Action Have Funding for Implementation? To be included in the No-Action Alternative, an action must have sufficient approved funding to provide for its implementation.

Criterion 3: Does the Action Have Final Environmental Documents? This criterion would be satisfied if all environmental documents and approvals necessary for implementation of the action have been completed.

Criterion 4: Does the Action Have Final Environmental Permits and Approvals? This criterion would be satisfied if all final major permits and approvals (e.g., a Section 404 permit or Endangered Species Act compliance) necessary to implement the action have been obtained.

Criterion 5: Will the Action Be Excluded from the CALFED Actions? Actions that will be included in the action alternatives for CALFED will not be included in the No-Action Alternative.

A comparison of the action alternatives with the No-Action Alternative would be distorted if an action were included in both.

Criterion 6: Would the Effects of the Action Be Identifiable at the Level of Detail Being Considered for CALFED Analysis? If a project's effects would be undetectable or minor in the programmatic impact analysis, the project need not be included in the No-Action Alternative. For example, if a project to be implemented by a water user could change localized conditions near the project but would not affect regional conditions or if those changes would be minor, the action may not need to be included in the No-Action Alternative. This criterion is intended to avoid inclusion of actions that would not materially affect the outcome of the CALFED alternatives analysis.

LIST OF PROJECTS CONSIDERED

Table 1 provides a list of specific major projects and studies that was developed by CALFED to be screened for inclusion in the No-Action Alternative. A total of 95 projects were considered in the screening process. The list of projects developed for the screening process was obtained from the Central Valley Project Improvement Act (CVPIA) No-Action Alternative Technical Appendix and included feasibility studies and other projects that are no longer being considered by the U.S. Bureau of Reclamation (Reclamation) and other State and local entities. Additional water projects recommended by CALFED staff and various stakeholders supplemented the CVPIA list. The list also includes several projects suggested by various entities at the public workshop conducted on July 11, 1996, and in comment letters. Those actions that are not included in the No-Action Alternative were further considered for inclusion in the cumulative impact analysis. The first part of the table is derived directly from the CVPIA Programmatic EIS (PEIS) process and contains a comprehensive list of actions, studies, and projects.

The list is not intended to identify every individual action, project, or program that has been proposed, but rather to focus on the major activities that should be considered for inclusion in the No-Action Alternative.

SCREENING FOR INCLUSION IN THE NO-ACTION ALTERNATIVE

The No-Action Alternative will be based initially on the facilities, operations, and institutional and regulatory considerations in place under existing conditions. The purpose of the screening process is to determine which additional actions, projects, and programs should be added to the existing-conditions scenario to form the No-Action Alternative.

Table 2 contains the preliminary results of the screening process for inclusion of actions in the CALFED No-Action Alternative. Projects that are currently under construction but not yet operational will be included in the No-Action Alternative but not in benchmark modeling runs. A

complete discussion of screening results is provided in Appendix B. For a project to be included in the No-Action Alternative, a "yes" response was required under each column heading. For each action, study, or project listed, the criteria were reviewed and a response was made to each question until a "no" response was derived, in which case the action, study, or project was excluded from the No-Action Alternative, or until all responses were determined to be positive, in which case the item is proposed to be included in the No-Action Alternative. Using the screening criteria, 15 projects are currently at the stage where they can be added to the existing-conditions scenario and included in the CALFED No-Action Alternative. As shown in Table 2, the following projects are being considered for inclusion in the No-Action Alternative:

- Coastal Aqueduct,
- CVPIA (dedication of 800,000 acre-feet per year and portion of incremental Level 4 water to refuges),
- Interim Reoperation of Folsom Reservoir (Sacramento Area Floord Control Agency and U.S. Bureau of Reclamation [Reclamation]),
- Kern Water Bank (phases already completed or under construction),
- Los Vaqueros Reservoir Project,
- Metropolitan Water District - Eastside Reservoir Project,
- Metropolitan Water District - Inland Feeder Project,
- Monterey Agreement,
- New Melones Conveyance Project,
- Sacramento River Flood Control System Evaluation (partial),
- Sacramento-San Joaquin Delta Levees Subvention Project,
- Semitropic Water Storage District/Metropolitan Water District - Semitropic Groundwater Banking Project,
- Shasta Temperature Control Device,
- Stone Lakes National Wildlife Refuge, and
- Trinity River Restoration Program.

Several projects that met the criteria for inclusion in the No-Action Alternative and that were originally included have been removed because they did not have effects on CVP or SWP water management operations or would not be identifiable at a program level. These projects include Kesterson Reservoir Cleanup Program, Spring Creek Toxicity Program, Cache Creek Basin Study, and the West Sacramento Project.

SCREENING FOR INCLUSION IN THE CUMULATIVE IMPACT ANALYSIS

Once the actions were screened for inclusion in the No-Action Alternative, CALFED conducted a second screening of the remaining actions, studies, and projects to determine whether those items should be included in the cumulative impact analysis. Results of the screening to identify cumulative actions are provided in Appendix B for each project. Similar to the approach for screening items for inclusion in the No-Action Alternative, the remaining items were assessed by comparison of each of the items with the screening criteria for inclusion in the cumulative impact analysis (Table 3). Each of the criteria was evaluated and the item was considered until either a "no" response was appropriate or, if all responses were positive, the action was considered appropriate to include in the cumulative impact analysis. The following 13 projects met the screening criteria and are tentatively considered appropriate for inclusion in the cumulative impact analysis:

- American River Water Resources Investigation,
- American River Watershed Project,
- CVPIA (remaining),
- Contra Costa Pumping Plant Modifications,
- Delta Wetlands Project,
- Folsom South Canal Connection Project,
- Interim South Delta Program,
- Montezuma Wetlands Project,
- Pardee Reservoir Enlargement Project,
- Red Bluff Diversion Dam Fish Passage Program,
- Refuge Water Supply Study,
- Sacramento River Flood Control System Evaluations (partial), and
- Sacramento Water Forum Process.

After further review, one project, the Glenn-Colusa Irrigation District (GCID) Fish Screen Project, which was initially shown as meeting the cumulative analysis criteria in the workshop packet, was eliminated.

POSSIBLE ADDITIONAL ANALYSES

It is possible that during preparation of the Programmatic EIR/EIS, additional projects will be developed to the point where they would pass the screening criteria described above. CALFED will review such projects and determine the need for any additional analyses to incorporate these projects into the cumulative impact analysis.

Table 1. Identified Projects to be Considered for Inclusion in the No-Action Alternative or the Cumulative Impact Analysis

Project Name	Project Status		
	Study	Design	Construction
Projects Previously Considered for Inclusion in the CVPIA PEIS			
American River Watershed Project (flood detention dam at Auburn site/downstream levee improvements)	X		
Anderson-Cottonwood Irrigation District Fish Passage	X		
Arroyo Pasajero	X		
Arvin Edison Water Storage District Exchange Program	X		
Auburn Dam and Reservoir	X	X	
Cache Creek Basin Study (Corps)	X	X	
Cache Creek Basin Study (U.S. Bureau of Reclamation)	X		
Caliente Creek Feasibility Study	X		
Central Valley Fish and Wildlife Management Study	X		
Central Valley Project Operations, Total Water Management Study	X		
Clear Creek Improvements	X	X	
Coastal Aqueduct	X	X	X
Coleman Fish Hatchery Improvements	X	X	
Colusa Basin Study	X		
Contra Costa Pumping Plant Modifications	X		
Delta Wetlands Project	X		
East Bay Municipal Utility District Updated Water Supply Management Program	X		
Enlarged Cross Valley Canal	X	X	
Folsom-South and Lower American River Study	X		
Fresno-Clovis Water Resources Master Plan	X		
Friant Power Plants Study	X		
Georgiana Slough Improvements	X		
Glenn-Colusa Irrigation District Fish Screen Improvement Project	X		
Interim South Delta Program	X		
Kaweah River Investigation	X		
Kellogg Unit Reformulation	X		
Kern Water Bank	X	X	X
Kesterson Reservoir Cleanup	X	X	X
Keswick Power Plant Enlargement	X		
Lake Oroville Enhancement Study	X		
Lake, Yolo, Napa, and Solano Counties Ground Water Study	X		

Project Name	Project Status		
	Study	Design	Construction
Los Banos Grandes Dam and Reservoir	X		
Los Vaqueros Reservoir Project	X	X	X
Lower San Joaquin River and Tributaries Levees Improvements	X		
Marysville Lake	X		
Marysville-Yuba River Levees Study Phase II System Evaluation	X	X	X
Merced County Streams Study	X		
Metropolitan Water District Inland Feeder Project	X	X	
Mid-Valley Canal (San Joaquin Conveyance Project)	X		
New Melones Lake Resource Management Plan	X		
North Delta Water Management Program	X		
Offstream Storage	X		
Old River Barrier	X		
Pine Flat Fish and Wildlife Restoration Project	X		
Red Bank Dam Study (Cottonwood)	X		
Redbank-Fancher Creeks Dams	X	X	X
Red Bluff Diversion Dam Fish Passage Program	X		
Refuge Water Supply Study	X		
Sacramento Basin Fish Habitat Improvement Study	X		
Sacramento Municipal Utility District - El Dorado County Water Agency Upper American River Project	X		
Sacramento River Drainage and Seepage Utilization Study	X		
Sacramento River Flood Control System Evaluation	X	X	X
Sacramento-San Joaquin Delta Levees Subvention Project	X	X	X
San Francisco Bay Area and San Joaquin Valley Water Reuse Project	X		
San Luis Unit Drainage Plan	X	X	
Shasta Lake Enlargement	X		
Shasta Temperature Control Device	X	X	X
Sites Reservoir	X		
Sonora-Keystone Unit Studies (Stanislaus Division)	X		
South Sacramento Streams Study	X		
Spring Creek Toxicity Program	X	X	X
Stanislaus River Basin and Calaveras River Water Use Program	X		
Stone Lakes National Wildlife Refuge	X	X	X
Suisun Marsh Protection Plan (partial)	X	X	X
Tracy Pumping Plant Improvements	X		

Project Name	Project Status		
	Study	Design	Construction
Trinity River Restoration Program	X	X	X
Upper Sacramento River Fisheries and Riparian Habitat Study	X		
Watsonville (Pajaro Valley Basin) Management Plan	X		
West Delta Water Management Program	X		
West Sacramento Project	X	X	X
Western Energy Expansion Study	X		
Western Sacramento Canals Unit	X		
Whiskeytown Power Plant Study	X		
Yolo Bypass Westside Tributaries Study	X		
Additional Projects Being Considered by CALFED for Inclusion in the Programmatic EIR/EIS			
American River Water Resources Investigation	X		
Central Valley Project Improvement Act	X		
East Bay Municipal Utility District/East San Joaquin County Parties-Groundwater Banking/Conjunctive Use Project	X		
Folsom Reservoir Outlet Shutters	X		
Folsom South Canal Connection Project	X		
Fresno Metropolitan Water Resources Master Plan	X		
Geothermal Investigations	X		
Interim Reoperation of Folsom Reservoir (Sacramento Area Flood Control Agency and U.S. Bureau of Reclamation)	X	X	
M & T/Parrott Pumping Plant and Fish Screen Project	X	X	X
Metropolitan Water District - Eastside Reservoir Project	X	X	X
Monterey Agreement	X		
Montezuma Wetlands Project	X		
New Melones Conveyance Project	X	X	X
New Melones Reservoir Water Management Study - Short-Term			
Pardee Reservoir Enlargement Project	X		
Sacramento Area Water Forum	X		
San Francisco - Central California Regional Water Recycling Project	X		
Semitropic Groundwater Banking	X	X	X
Westlands Water District - Conveyance of Nonproject Groundwater Using the California Aqueduct	X		
Westlands Water District - Conveyance of Nonproject Groundwater from the Mendota Pool Area Using the California Aqueduct	X		
Wind-Hydro Opportunities Study	X		

Table 2. Screening of Projects for Inclusion in the No-Action Alternative

Project Name	Criterion 1: Has the Action Been Approved for Implementation?	Criterion 2: Does the Action Have Funding for Implementation?	Criterion 3: Does the Action Have Final Environmental Documents?	Criterion 4: Does the Action Have Final Environmental Permits/ Approvals?	Criterion 5: Will the Action Be Excluded from the CALFED Actions?	Criterion 6: Would the Effects of the Action Be Identifiable at the Level of Detail Being Considered for CALFED Analysis?	**Incorporate into No-Action Alternative?**
American River Water Resources Investigation	No	No	No	No	Yes	Yes	No
American River Watershed Project	Partially	Partially	Yes	Partially	Yes	Yes	No
Anderson-Cottonwood Irrigation District - Fish Passage	No	No	No	No	Yes	No	No
Arroyo Pasajero	No	No	No	No	Yes	No	No
Arvin Edison Water Storage District - Water Storage and Exchange Program	No	No	No	No	NA	NA	No
Auburn Dam and Reservoir	No	No	No	No	Yes	Yes	No
Cache Creek Basin Study (Corps)	Yes	Yes	Yes	Yes	Yes	No	No
Cache Creek Basin Study (U.S. Bureau of Reclamation)	No	No	No	No	Yes	Yes	No
Caliente Creek Feasibility Study	No	No	No	No	Yes	No	No
Central Valley Fish and Wildlife Management Study	NA	NA	NA	NA	NA	NA	No
Central Valley Project Improvement Act (partial)	Yes	Yes	No	No	No	Yes	**Yes**
Central Valley Project Operations, Total Water Management Study	NA	NA	NA	NA	NA	NA	No
Clear Creek Improvements	Yes	Partially	No	No	No	Yes	No
Coastal Aqueduct	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Coleman Fish Hatchery Improvements	Partially	Partially	No	No	No	Yes	No
Colusa Basin Study	NA	NA	NA	NA	NA	NA	No
Contra Costa Pumping Plant Modifications	No	No	No	No	No	Yes	No

NA = Not applicable

Project Name	Criterion 1: Has the Action Been Approved for Implementation?	Criterion 2: Does the Action Have Funding for Implementation?	Criterion 3: Does the Action Have Final Environmental Documents?	Criterion 4: Does the Action Have Final Environmental Permits/ Approvals?	Criterion 5: Will the Action Be Excluded from the CALFED Actions?	Criterion 6: Would the Effects of the Action Be Identifiable at the Level of Detail Being Considered for CALFED Analysis?	**Incorporate into No-Action Alternative?**
Delta Wetlands Project	No	Yes	No	No	Yes	Yes	No
East Bay Municipal Utility District/East San Joaquin County Parties - Groundwater Banking Project	No	No	No	No	Yes	Yes	No
East Bay Municipal Utility District Updated Water Supply Management Program	Yes	Yes	Yes	NA	Yes	NA	No
Enlarged Cross Valley Canal	No	No	Yes	No	Yes	Yes	No
Folsom-South and Lower American River Study	No	No	No	No	Yes	Yes	No
Folsom South Canal Connection Project	No	No	No	No	Yes	Yes	No
Fresno-Clovis Metropolitan Water Resources Master Plan	No	No	No	No	Yes	NA	No
Fresno Metropolitan Water Resources Master Plan	No	No	No	No	Yes	NA	No
Friant Power Plants	No	No	No	No	Yes	No	No
Georgiana Slough Improvements	Yes	No	No	No	No	Yes	No
Geothermal Investigations	No	No	No	No	Yes	No	No
Glenn-Colusa Irrigation District Fish Screen Improvement Project	Yes	Yes	No	No	Yes	No	No
Interim Reoperation of Folsom Reservoir (Sacramento Area Flood Control Agency and U.S. Bureau of Reclamation)	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Interim South Delta Program	Yes	No	No	No	Probably not	Yes	No

NA = Not applicable

Project Name	Criterion 1: Has the Action Been Approved for Implementation?	Criterion 2: Does the Action Have Funding for Implementation?	Criterion 3: Does the Action Have Final Environmental Documents?	Criterion 4: Does the Action Have Final Environmental Permits/ Approvals?	Criterion 5: Will the Action Be Excluded from the CALFED Actions?	Criterion 6: Would the Effects of the Action Be Identifiable at the Level of Detail Being Considered for CALFED Analysis?	**Incorporate into No-Action Alternative?**
Kaweah River Investigation	No	No	No	No	Yes	No	No
Kellogg Unit Reformulation Study	No	No	No	No	Yes	Yes	No
Kern Water Bank	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Kesterson Reservoir Cleanup	Yes	Yes	Yes	Yes	Yes	No	No
Keswick Power Plant Enlargement	No	No	No	No	Yes	No	No
Lake Oroville Enhancement Study	Yes	Yes	Yes	Yes	Yes	No	No
Lake, Yolo, Napa, and Solano Counties Groundwater Study	NA	NA	NA	NA	NA	NA	No
Los Banos Grandes Dam and Reservoir Study	No	No	No	No	No	Yes	No
Los Vaqueros Reservoir Project	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Lower San Joaquin River and Tributaries Levee Improvements	No	No	No	No	Yes	Yes	No
M&T/Parrott Pumping Plant and Fish Screen Project	Yes	Yes	Yes	Yes	No	No	No
Marysville Lake	No	No	No	No	No	No	No
Marysville-Yuba River Levees Study	Yes	Yes	Yes	Yes	Yes	No	No
Merced County Streams Study	Yes	No	Yes	No	Yes	No	No
Metropolitan Water District - Eastside Reservoir Project	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Metropolitan Water District - Inland Feeder Project	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Mid-Valley Canal (San Joaquin Conveyance Project)	No	No	No	No	Yes	Yes	No

NA = Not applicable

Project Name	Criterion 1: Has the Action Been Approved for Implementation?	Criterion 2: Does the Action Have Funding for Implementation?	Criterion 3: Does the Action Have Final Environmental Documents?	Criterion 4: Does the Action Have Final Environmental Permits/ Approvals?	Criterion 5: Will the Action Be Excluded from the CALFED Actions?	Criterion 6: Would the Effects of the Action Be Identifiable at the Level of Detail Being Considered for CALFED Analysis?	**Incorporate into No-Action Alternative?**
Monterey Agreement	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Montezuma Wetlands Project	No	Yes	No	No	Yes	Yes	No
New Melones Conveyance Project	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
New Melones Reservoir Resource Management Plan	Yes	No	No	Not needed	Yes	No	No
New Melones Reservoir Water Management Study - Short-Term	No	No	No	No	Yes	Possibly	No
North Delta Water Management Program	No	No	No	No	Yes (partial)	Yes	No
Offstream Storage	No	NA	NA	NA	NA	NA	No
Old River Barrier	No	No	No	No	No	Yes	No
Pardee Reservoir Enlargement Project	No	No	No	No	Yes	Yes	No
Pine Flat Fish and Wildlife Restoration Project	No	No	No	No	Yes	No	No
Red Bank Dam Study (Cottonwood)	No	No	No	No	Possibly	Yes	No
Redbank-Fancher Creek Study	Yes	Yes	Yes	Yes	Yes	No	No
Red Bluff Diversion Dam Fish Passage Program	No	Yes	No	No	No	No	No
Refuge Water Supply Study	No	No	No	No	Yes	Yes	No
Sacramento Area Water Forum and the Foothill-Forum Water Group - Water Forum	No	No	No	No	Yes	Yes	No
Sacramento Basin Fish Habitat Improvement Study	NA	NA	NA	NA	NA	NA	No

NA = Not applicable

Project Name	Criterion 1: Has the Action Been Approved for Implementation?	Criterion 2: Does the Action Have Funding for Implementation?	Criterion 3: Does the Action Have Final Environmental Documents?	Criterion 4: Does the Action Have Final Environmental Permits/ Approvals?	Criterion 5: Will the Action Be Excluded from the CALFED Actions?	Criterion 6: Would the Effects of the Action Be Identifiable at the Level of Detail Being Considered for CALFED Analysis?	**Incorporate into No-Action Alternative?**
Sacramento Municipal Utility District - El Dorado County Water Agency Upper American River Project	No	No	No	No	Yes	Yes	No
Sacramento River Drainage and Seepage Utilization Study	No	No	No	No	Yes	Yes	No
Sacramento River Flood Control System Evaluation (partial)	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Sacramento-San Joaquin Delta Levees Subvention Project	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
San Francisco Bay Area and San Joaquin Valley Water Reuse Project	No	No	No	No	Yes	NA	No
San Francisco - Central California Regional Water Recycling Project	No	No	No	No	Yes	NA	No
San Luis Unit Drainage Plan	No	No	No	No	Yes	Yes	No
Semitropic Water Storage District/Metropolitan Water District - Groundwater Banking Project	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Shasta Lake Enlargement	No	No	No	No	Yes	Yes	No
Shasta Temperature Control Device	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Sites Reservoir	No	No	No	No	Yes	Yes	No
Sonora-Keystone Unit Studies	No	No	No	No	Yes	No	No
South Sacramento Streams Study	No	No	No	No	Yes	No	No
Spring Creek Toxicity Program	Yes	Yes	Yes	No	Yes	Possibly	No
Stanislaus River Basin and Calaveras River Water Use Program	No	No	No	No	No	Yes	No

NA = Not applicable

Project Name	Criterion 1: Has the Action Been Approved for Implementation?	Criterion 2: Does the Action Have Funding for Implementation?	Criterion 3: Does the Action Have Final Environmental Documents?	Criterion 4: Does the Action Have Final Environmental Permits/ Approvals?	Criterion 5: Will the Action Be Excluded from the CALFED Actions?	Criterion 6: Would the Effects of the Action Be Identifiable at the Level of Detail Being Considered for CALFED Analysis?	**Incorporate into No-Action Alternative?**
Stone Lakes National Wildlife Refuge	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Suisun Marsh Protection Plan	No	No	No	No	No	Yes, for Phases I and II	No
Tracy Pumping Plant Improvements	Yes	Yes	No	No	Yes	Yes	No
Trinity River Restoration Program	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Upper Sacramento River Fisheries and Riparian Habitat Study	Partially	Partially	No	No	No	Yes	No
Watsonville (Pajaro Valley Basin) Management Plan	No	No	No	No	Yes	Yes	No
West Delta Water Management Program	No	No	No	No	No	Yes	No
West Sacramento Project	Yes	Yes	Yes	Yes	Yes	No	No
Western Energy Expansion Study	NA	NA	NA	NA	NA	NA	No
Western Sacramento Canals Unit	No	No	No	No	Yes	No	No
Westlands Water District - Conveyance of Nonproject Groundwater Using the California Aqueduct	No	No	No	No	Yes	Yes	No
Westlands Water District - Conveyance of Nonproject Groundwater from the Mendota Pool Area Using the California Aqueduct	No	No	No	No	Yes	Yes	No
Whiskeytown Power Plant	No	No	No	No	Yes	No	No
Wind-Hydro Opportunities Study	NA	NA	NA	NA	NA	NA	No
Yolo Bypass Westside Tributaries Study	No	No	No	No	Yes	No	No

NA = Not applicable

Table 3. Screening of Projects for Inclusion in the Cumulative Impact Analysis

Project Name	Criterion 1: Is the Action under Active Consideration?	Criterion 2: Does the Action Have Recently Completed or Active Environmental Documentation?	Criterion 3: Would the Action Be Completed within the Timeframe Being Considered for Program?	Criterion 4: Does the Action, in Combination with the CALFEDAlternatives, Have the Potential to Affect the Same Resources?	**Include in the Cumulative Impact Analysis?**
American River Water Resources Investigation	Yes	Yes	Yes	Yes	**Yes**
American River Watershed Project	Yes (partial)	Yes	Yes	Yes	**Yes**
Anderson-Cottonwood Irrigation District - Fish Passage	No	No	Possibly	Yes	No
Arroyo Pasajero	Yes	Yes	Possibly	No	No
Arvin Edison Water Storage District - Water Storage and Exchange Program	No	No	No	Yes	No
Auburn Dam and Reservoir	No	No	Possibly	Yes	No
Cache Creek Basin Study (U.S. Bureau of Reclamation)	No	No	No	Yes	No
Caliente Creek Feasibility Study	No	No	No	Yes	No
Central Valley Fish and Wildlife Management Study	NA	NA	NA	NA	No
Central Valley Project Improvement Act (partial)	Yes	Yes	Yes	Yes	**Yes**
Central Valley Project Operations, Total Water Management Study	NA	NA	NA	NA	No
Clear Creek Improvements	Yes	No	Possibly	Yes	No
Coleman Fish Hatchery Improvements	Yes	No	Possibly	Yes	No
Colusa Basin Study	NA	NA	NA	NA	No
Contra Costa Pumping Plant Modifications	Yes	Yes	Yes	Yes	**Yes**
Delta Wetlands Project	Yes	Yes	Yes	Yes	**Yes**
East Bay Municipal Utility District/East San Joaquin County Parties - Groundwater Banking Project	Yes	No	Possibly	Yes	No

NA = Not Applicable

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Project Name	Criterion 1: Is the Action under Active Consideration?	Criterion 2: Does the Action Have Recently Completed or Active Environmental Documentation?	Criterion 3: Would the Action Be Completed within the Timeframe Being Considered for Program?	Criterion 4: Does the Action, in Combination with the CALFEDAlternatives, Have the Potential to Affect the Same Resources?	**Include in the Cumulative Impact Analysis?**
East Bay Municipal Utility District Updated Water Supply Management Program	No	No	No	Yes	No
Enlarged Cross Valley Canal	No	No	No	Yes	No
Folsom-South and Lower American River Study	No	No	No	Yes	No
Folsom South Canal Connection Project	Yes	Yes	Yes	Yes	**Yes**
Fresno-Clovis Metropolitan Water Resources Master Plan	No	No	No	Yes	No
Fresno Metropolitan Water Resources Master Plan	Yes	No	Possibly	Yes	No
Friant Power Plants	No	No	No	No	No
Georgiana Slough Improvements	Yes	No	Possibly	Yes	No
Geothermal Investigations	No	No	No	No	No
Glenn-Colusa Irrigation District Fish Screen Improvement Project	Yes	Yes	No	Yes	No
Interim South Delta Program	Yes	Yes	Possibly	Yes	**Yes**
Kaweah River Investigation	Yes	No	Possibly	Yes	No
Kellogg Unit Reformulation Study	No	Yes	No	Yes	No
Kesterson Reservoir Cleanup	Yes	Yes	Possibly	Yes	No
Keswick Power Plant Enlargement	No	No	No	Yes	No
Lake Oroville Enhancement Study	Yes	Yes	Possibly	Yes	No
Lake, Yolo, Napa, and Solano Counties Groundwater Study	No	No	No	Yes	No
Los Banos Grandes Dam and Reservoir Study	Yes	Yes	Possibly	Yes	No
Lower San Joaquin River and Tributaries Levee Improvements	No	No	No	Yes	No

NA = Not Applicable

Table 3. Continued

Project Name	Criterion 1: Is the Action under Active Consideration?	Criterion 2: Does the Action Have Recently Completed or Active Environmental Documentation?	Criterion 3: Would the Action Be Completed within the Timeframe Being Considered for Program?	Criterion 4: Does the Action, in Combination with the CALFEDAlternatives, Have the Potential to Affect the Same Resources?	**Include in the Cumulative Impact Analysis?**
M&T/Parrott Pumping Plant and Fish Screen Project	Yes	Yes	Yes	Yes	No
Marysville Lake	No	No	No	Yes	No
Marysville-Yuba River Levees Study	Yes	Yes	Yes	Yes	No
Merced County Streams Study	Yes	Yes	Possibly	Yes	No
Mid-Valley Canal (San Joaquin Conveyance Project)	No	No	No	Yes	No
Montezuma Wetlands Project	Yes	Yes	Possibly	Yes	**Yes**
New Melones Reservoir Resource Management Plan	Yes	Yes	No	Yes	No
New Melones Reservoir Water Management Study - Short-Term	No	No	Possibly	Yes	No
North Delta Water Management Program	No	No	No	Yes	No
Offstream Storage	NA	No	No	Yes	No
Old River Barrier	Yes	No	Possibly	Yes	No
Pardee Reservoir Enlargement Project	Yes	Yes	Yes	Yes	**Yes**
Pine Flat Fish and Wildlife Restoration Project	Yes	No	Possibly	Yes	No
Red Bank Dam Study (Cottonwood)	No	No	Possibly	Yes	No
Redbank-Fancher Creek Study	NA	NA	NA	NA	NA
Red Bluff Diversion Dam Fish Passage Program	Yes	No	Yes	Yes	**Yes**
Refuge Water Supply Study	Yes	Yes	Yes	Yes	**Yes**
Sacramento Area Water Forum and the Foothill-Forum Water Group - Water Forum	Yes	Yes	Possibly	Yes	**Yes**
Sacramento Basin Fish Habitat Improvement Study	Yes	No	Possibly	Yes	No

NA = Not Applicable

C—000898

Project Name	Criterion 1: Is the Action under Active Consideration?	Criterion 2: Does the Action Have Recently Completed or Active Environmental Documentation?	Criterion 3: Would the Action Be Completed within the Timeframe Being Considered for Program?	Criterion 4: Does the Action, in Combination with the CALFEDAlternatives, Have the Potential to Affect the Same Resources?	**Include in the Cumulative Impact Analysis?**
Sacramento Municipal Utility District-El Dorado County Water Agency Upper American River Project	No	No	No	Possibly	No
Sacramento River Drainage and Seepage Utilization Study	No	No	No	Yes	No
Sacramento River Flood Control System Evaluation	Yes	Yes	Yes	Yes	**Yes (partial)**
San Francisco Bay Area and San Joaquin Valley Water Reuse Project	No	No	No	Yes	No
San Francisco - Central California Regional Water Recycling Project	Yes	N o	Possibly	Yes	No
San Luis Unit Drainage Plan	No	Yes	No	Yes	No
Shasta Lake Enlargement	No	No	No	Yes	No
Sites Reservoir	No	No	No	Yes	No
Sonora-Keystone Unit Studies	No	No	No	No	No
South Sacramento Streams Study	Yes	No	Possibly	Yes	No
Spring Creek Toxicity Program	Yes	Yes	Possibly	Yes	No
Stanislaus River Basin and Calaveras River Water Use Program	NA	NA	NA	NA	No
Suisun Marsh Protection Plan	Yes	No	Possibly	Yes	No
Tracy Pumping Plant Improvements	Yes	No	Yes	Yes	No
Trinity River Restoration Program	Yes	Yes	Possibly	Yes	No
Upper Sacramento River Fisheries and Riparian Habitat Study	Yes	No	Yes	Yes	No
Watsonville (Pajaro Valley Basin) Management Plan	Yes	No	Possibly	Yes	No

NA = Not Applicable

Project Name	Criterion 1: Is the Action under Active Consideration?	Criterion 2: Does the Action Have Recently Completed or Active Environmental Documentation?	Criterion 3: Would the Action Be Completed within the Timeframe Being Considered for Program?	Criterion 4: Does the Action, in Combination with the CALFEDAlternatives, Have the Potential to Affect the Same Resources?	**Include in the Cumulative Impact Analysis?**
West Delta Water Management Program	Yes	Yes	Possibly	Yes	No
West Sacramento Project	Yes	Yes	Yes	Yes	No
Western Sacramento Canals Unit	No	No	No	Yes	No
Westlands Water District - Conveyance of Nonproject Groundwater Using the California Aqueduct	Yes	No	Possibly	Yes	No
Westlands Water District - Conveyance of Nonproject Groundwater from the Mendota Pool Area Using the California Aqueduct	Yes	Yes	Possibly	Yes	No
Whiskeytown Power Plant	No	No	No	Yes	No

NA = Not Applicable

APPENDIX A

COMMENTS AND RESPONSES TO COMMENTS RECEIVED AT THE WORKSHOP ON THE PROPOSED APPROACHES TO EXISTING CONDITIONS, THE NO-ACTION ALTERNATIVE, AND CUMULATIVE ACTIONS

C-000901

COMMENTS AND RESPONSES TO COMMENTS RECEIVED AT THE WORKSHOP ON THE PROPOSED APPROACHES TO EXISTING CONDITIONS, THE NO-ACTION ALTERNATIVE, AND CUMULATIVE ACTIONS

The Existing Conditions, No-Action, and Cumulative Actions Workshop was held on July 11, 1996, at the Sacramento Convention Center from 9:00 a.m. to 11:30 a.m. CALFED Bay-Delta Program (CALFED) staff presented the current objectives and approaches to addressing existing conditions, the No-Action Alternative, and cumulative actions in the pending Programmatic Environmental Impact Report/Environmental Impact Statement (EIR/EIS) (as generally described in the Information Packet mailed before the workshop) and solicited input and comments from workshop participants. Questions and comments were recorded during the workshop and written comments were received at the end of the workshop and at the CALFED office. The following is a summary of the comments and CALFED's responses to comments. Where feasible, comments similar in nature have been combined to allow one response.

COMMENTS RECEIVED DURING THE WORKSHOP

COMMENTS ON EXISTING CONDITIONS

RESOURCE CATEGORIES

Comment 1: *There appears to be an absence of recognition of the drainage problem. A description of the drainage problems needs to be included as part of the existing conditions, no action, and alternatives.*

Response: Drainage conditions and concerns will be discussed in the Programmatic EIR/EIS under the following resource topics: hydrology, soils, water quality, land use, and agricultural economics.

Comment 2: *The resource categories are too general. What is included in water quality and water supply? A more specific discussion of the issues is needed. The municipal and industrial water supply economics and the in-Delta and out-of-Delta issues should be separate discussions, not combined. The "Biological Environment" section should include a discussion of species that are doing well because certain actions may affect those species.*

Response: CALFED agrees that the resource categories and resource topics presented in Table 1 of the Information Packet are general. A more detailed list of the resource categories is included as Attachment A. Primary issues that will be addressed in water quality include evaluations of flow, temperature, dissolved oxygen, and electrical conductivity; dissolved minerals and salinity; dissolved organic carbon, selenium levels, aquatic toxicity, chloride and bromide concentrations, and heavy metal and pesticide residue concentrations; and applicable standards and plans for streams, export water, irrigation uses, and drinking water.

Issues that will be addressed in the water supply section include surface water hydrology; reservoir storage volumes, releases, operation, and demands; groundwater storage capacity and supply yield; instream flow targets, deficits, and surpluses; agricultural drainage volumes; Delta water project operations and water supply planning; Delta exports and diversions; water rights and use policies; area-of-origin statutes; and water transfers.

The Programmatic EIR/EIS will address the resources most likely to be affected by proposed CALFED actions, including in-Delta and out-of-Delta issues. The Programmatic EIR/EIS will include a discussion of wildlife, among other biological resources, and will address all relevant species.

Comment 3: *A discussion of the existing flood-control-system status and Delta and upriver needs to be included as part of existing conditions, no action, and cumulative actions. There needs to be more analysis of CALFED actions on that important system. Where will the vulnerability of the levee system be discussed?*

Response: A programmatic-level discussion of the flood control system status, including levees, channels, water management and operations, and levee system vulnerability, will be included in the affected environment and environmental consequences sections of the Programmatic EIR/EIS's under the topic "Flood Control Systems and Other Infrastructure".

Comment 4: *Groundwater resources in both the San Joaquin and Sacramento Valleys need to be analyzed as a separate resource category.*

Response: As acknowledged in the workshop materials, groundwater hydrology, including resources in the Central Valley, will be addressed as a separate resource topic under the "Physical Environment" resource category.

Comment 5: *CALFED should consider using the Habitat Evaluation Procedure (HEP) as a tool for analyzing impacts in the terrestrial resources analysis. Some HEP*

analysis has been done in the Delta, so there is a lot of existing information.

Response: CALFED believes that HEP analyses may be appropriate for future site-specific projects, but CALFED is not proposing to use a HEP analysis in the Programmatic EIR/EIS. Rather, CALFED will be assessing changes in habitats and habitat types at a broad scale and using this information to predict effects on wildlife and plant species in areas likely to be affected by the alternatives.

Comment 6: *Wildlife resources should be added to the list under the resource category of "Biological Environment" (Table 1).*

Response: Wildlife resources will be discussed in the Programmatic EIR/EIS. See Attachment A.

Comment 7: *Does the water management facilities and operations under the "Physical Environment" resource category (Table 1) include water use and supply? Does the fisheries analysis in the "Biological Environment" resource category (Table 1) include the harvest aspect? These should be included.*

Response: Water use and water supply will be addressed in the Programmatic EIR/EIS under several categories. Fish harvest information will be presented under fisheries resources ("Biological Environment" resource category), as will recreation and commercial fishing ("Economics and Social Environment" resource category). See also response to Comment 2.

Comment 8: *The geographic scope of the analysis for Table 1 is a little unclear. Is it just the Delta or does is it include the full Central Valley?*

Response: The Programmatic EIR/EIS will include a two-tiered assessment of resources that may be affected by or may affect CALFED actions. The "problem scope" includes the legally defined Delta and Suisun Bay to Carquinez Strait and Suisun Marsh. The "solution scope" includes the Bay-Delta region within and as part of a larger water and biological resource system that involves the Central Valley watershed, the Southern California service system of existing delivery facilities, the greater San Francisco Bay Area, and portions of the Pacific coastline.

Comment 9: *Both Tables 1 and 2 mention power production but not power supply. With the potential for moving water around the Delta, power use is important, as well as production.*

Response: The Programmatic EIR/EIS will include analyses of power use and power supply.

Comment 10: *The land use analysis may need to be broadened. There are projections that the*

population in the Central Valley will double and triple over the next 20 to 40 years. We are losing 10,000 to 100,000 acres a year of agricultural land that also provides open space. There will be a lot more development. The land use/socioeconomics analysis should be expanded to grasp land use shifts as a result of the alternatives.

Response: The land use analysis will include a discussion of existing and future population projections, demographics, and trends.

Comment 11: *Under "Economics and Social Environment", where will third-party impacts on communities and school districts be discussed?*

Response: Third-party impacts will be discussed where appropriate with the programmatic-level analysis being conducted for CALFED. Third-party impacts will be addressed in more detail during the appropriate project-specific and site-specific efforts.

HISTORICAL PERSPECTIVE

Comment 12: *The historical periods need to reflect the removal of the beaver population that was a keystone species to aquatic ecology and the Sacramento River; the periodic burning of the tule swamps by the Native Americans; the epidemics in the 1830s and 1840s that killed so many Native Americans; and the increased population of salmon in 1850 that was a consequence of fewer Native Americans harvesting salmon after the malaria outbreak. These historical periods should be pushed back to 1830. The historical period for commercial fishing should go back to 1870. The California Department of Fish and Game (DFG) has a database for the river gill-net fishery.*

Response: The historical period for natural resources in the Delta will consider events that occurred before 1920 and that are determined to be significant at the programmatic level.

Comment 13: *One cannot help but allude to the Native Americans who lived on this continent and knew it more thoroughly than we Europeans. They worshipped the Great Spirit and lived very lightly on the land.*

Response: The prehistoric and historic periods will be considered and addressed for Native Americans in the study area under the "Cultural Resources" category in the Programmatic EIR/EIS, and requirements will be identified to preserve related historic and cultural resources.

Comment 14: *Where will the Indian trust assets be discussed?*

Response: Indian trust assets will be discussed under the "Land Use" category.

Comment 15: *The time period for geomorphology and soils is 1940-1995. What is the basis for the information and the credibility of the sources?*

Response: The historical period for soils has been revised. It now extends from 1850 to 1995 to address the effects of drainage and diking for agriculture and associated subsidence and agricultural and other land uses since then. Sources of information will include the U.S. Department of Agriculture Natural Resources Conservation Service, county soil surveys; U.S. Geological Survey publications, California Division of Mines and Geology and California Division of Oil and Gas; California Department of Water Resources reports; and Delta Protection Commission reports.

Comment 16: *The levees had a dramatic effect on soils going back to the mid-1800s. The time period for the historical period needs to be extended back to at least 1850 to capture those changes.*

Response: CALFED agrees. The historical period has been revised. It now extends back to 1850 to address such effects.

PERIOD OF ANALYSIS

Comment 17: *Why was a 10-year period from 1986 to 1995 selected for the period of analysis? For example, from 1986 to 1995, agriculture experienced a severe drought; mixing it into the analysis will skew the analysis. The San Joaquin Valley Agricultural Water Committee published two reports regarding the effects of the 1991 and 1992 droughts on economics and agriculture. Five of the 10 years from 1986 to 1995 had less than 100% delivery of contracted water. If the years for analyzing surface water hydrology are extended from 1980 to 1995, there will be a better distribution and more representative information.*

Response: CALFED has revised the period of analysis for surface water topics related to agriculture, agricultural economics, and agricultural land use in response to comments received at the workshop and during scoping. The previous 10-year period of analysis (1986-1995) has been expanded to 1976-1995. CALFED believes that this 20-year period encompasses a more representative period for hydrology and associated agricultural issues.

Comment 18: *The period of analysis for agricultural land use and agricultural economics needs to be extended back to the mid-1970s because there were 5 years of less than 100% contracts given during that timeframe. Six to seven of those years were affected by the drought.*

Response: See response to Comment 17.

Comment 19: *The period of analysis for water needs to be extended back to 1983 to include some wet years and result in a better distribution of wet and dry years. If CALFED extends the period beginning from 1980 to 1995, it will have a much better distribution of water-year types.*

Response: See response to Comment 17.

Comment 20: *In 1983, there was a serious decline in the commodity prices and it is really only recovering today. The period of analysis for agricultural economics should be extended back to the mid-1970s.*

Response: See response to Comment 17.

ELEMENTS

Comment 21: *The discussion of elements should include other projects besides the Central Valley Project (CVP) and State Water Project (SWP). Other projects, such as the East Bay Municipal Utility District (EBMUD) and San Francisco projects, should be included, as well as other private projects.*

Response: The discussion of elements is being revised to include public and private projects.

Comment 22: *A clear understanding of the elements and assumptions for existing conditions is needed. Most elements and assumptions are focused on water operations studies. Assumptions are needed for other issues, such as for restrictions on fishing, rice practices, and rice-land flooding. There are many other factors beyond water supply.*

Response: Assumptions for all the issue areas will be identified for existing conditions, the No-Action Alternative, and proposed action alternatives before the consequences of implementing the alternatives are analyzed.

Comment 23: *Do contracts and water rights deliveries include all types of water rights, or just appropriative water rights?*

Response: In addition to appropriative rights, the Programmatic EIR/EIS will address contracts, riparian water rights, area-of-origin statutes, water transfers, and other appropriate policies and practices.

Comment 24: *The discussion of elements needs to include the State Drought Water Bank, conjunctive use, and temporary transfers.*

Response: The Programmatic EIR/EIS will discuss the State Drought Water Bank, water conservation plans and statutes, and groundwater management policies.

COMMENTS ON THE NO-ACTION ALTERNATIVE

Comment 25: *Why isn't the Monterey Agreement discussed in "Existing Conditions"? The agreement is being implemented this year.*

Response: CALFED has reviewed the Monterey Agreement and determined that although the environmental documentation for the agreement was recently found to be valid, the agreement has not yet begun to be implemented and further actions are required before it can be implemented. Therefore, CALFED believes that it is appropriate to include the agreement in the No-Action Alternative rather than in "Existing Conditions".

Comment 26: *On one of the tables, you have the Kern Water Bank as a state project. It is not a state project; it is being transferred.*

Response: CALFED recognizes the transfer of the Kern Water Bank to the Kern County Water Agency in 1996 as a condition of the Monterey Agreement and will include it on the list of projects for evaluation under screening criteria.

Comment 27: *What are the criteria for distinguishing between existing conditions and no action?*

Response: "Existing conditions" describes current conditions. The No-Action Alternative describes the likely future conditions in the study area, assuming implementation of reasonably foreseeable projects, without implementation of CALFED actions.

CRITERIA

Comment 28: *Only two of the mandated actions for the Central Valley Project Improvement Act (CVPIA) are listed under no action: 800,000 acre-feet/yr and the delivery of*

Level 4 quantities of water to wildlife refuges. Maybe some of Criteria 3 and 4 are excluding the other CVPIA actions. This will skew the evaluation of alternatives. There are definite CVPIA actions that will happen regardless of what CALFED does. It may not be possible to separate the CVPIA effects from the non-CVPIA effects in the alternatives analysis. CALFED staff should look at which actions are truly mandated and separate their impacts from the impact of those that are not mandated.

Response: Many of the CVPIA fish and wildlife actions are included in the CALFED alternatives. Most of the components do not meet the No-Action Alternative criteria. CALFED is reviewing the criteria as they relate to CVPIA actions.

Comment 29: *Several other local projects, such as the Eastside Reservoir and the Inland Feeder in Southern California, should be considered.*

Response: These projects have been added to the list of projects to be considered for inclusion in the No-Action Alternative and cumulative impact analysis. CALFED has screened both projects using the criteria stated at the workshop. Both projects will be included in the No-Action Alternative.

Comment 30: *The sidebar analyses being discussed by CALFED should include projects such as EBMUD's American River contractual entitlement on the American River. These projects should be evaluated at a level equal to other actions (the full range of issues, not just the flow or instream requirements) The analysis should assume deliveries to EBMUD within the constraints of the Hodge Decision.*

Response: This project and other projects will be included in various sidebar analyses. These analyses will be conducted at an appropriate level of detail compatible with the nature of the Programmatic EIR/EIS.

Comment 31: *The water bank is an existing program, but it is elusive. There are water efficiency plans that count on conjunctive use in the CALFED alternatives. The water bank should be included under "Existing Conditions".*

Response: The water bank will be discussed under "Existing Conditions".

Comment 32: *What is the Tracy Pumping Plant Improvements project?*

Response: The Tracy Pumping Plant Improvements project is a project proposed by the U.S. Bureau of Reclamation and DFG to develop long-term solutions to improve fish survival at the Tracy Pumping Plant. The agencies are studying alternative pumping operations, predator management, and other alternatives.

NO-ACTION ELEMENTS

Comment 33: *Under State of California projects in Table 4, the Suisun Marsh Plan of Protection is listed as a project under construction; however, the project is listed as "No" on Table 5 and is not incorporated into the No-Action Alternative.*

Response: The Suisun Marsh Preservation Agreement is being updated. Under the new conditions, the four large facilities identified in the Suisun Marsh Preservation Agreement and Plan of Protection, which are not yet built, will not be needed. The agreement identified 18 actions, 11 of which were considered highly feasible; these 11 feasible actions were advanced to the California State Water Resource Control Board (SWRCB) for inclusion in the EIR for implementation of the 1995 Water Quality Control Plan. The 11 program actions will be included in the cumulative impact analysis.

Comment 34: *One other project that should be added to the list is the Semitropic Water Bank. It has been implemented for at least a year or more.*

Response: This project has been added to the list of projects being screened for inclusion in the No-Action Alternative or the cumulative impact analysis. The project met all criteria and will be included in the No-Action Alternative.

Comment 35: *Under CVPIA, CALFED lists the 800,000 acre-feet and the Level 4 water deliveries. Should this be Level 2 because Level 2 is out of project yield? Level 4 is supposed to be delivered from nonproject sources. If Level 2 is included, Level 4 should be included as another nonproject demand.*

Response: CALFED recognizes that the incremental quantities of water needed to reach Level 4 deliveries are to be from nonproject sources. However, because this effort is ongoing, CALFED believes it appropriate to include the Level 4 deliveries under the No-Action Alternative.

ELEMENTS

Comment 36: *The definition of power for existing conditions and no-action elements deals only with CVP; there is no reference to SWP or other projects. This should be reconsidered.*

Response: The definition of power has been revised to include SWP and other public and private projects.

Comment 37: *How do area-of-origin demands (needs) fit into the elements?*

Response: CALFED does not intend to modify, strengthen, or expand California water law for protecting area-of-origin needs. The Phase II analysis will examine any impacts of the proposed alternatives upon area-of-origin water rights.

Comment 38: *Population projections should consider zero population growth.*

Response: CALFED will use the California Department of Finance projections for population growth.

Comment 39: *How many years in the future is the No-Action Alternative?*

Response: CALFED is anticipating the No-Action Alternative and cumulative impact analysis to be an analysis of 2020 conditions because the data up to 2020 are available and it is possible to predict 2020 conditions with some degree of certainty. This is the same timeframe being used by other similar major environmental documents.

Comment 40: *If No-Action is 2020, should the Interim Reoperation of Folsom Reservoir be included in a long-term plan?*

Response: CALFED believes that the Interim Reoperation of Folsom or an equivalent program that maintains Sacramento's 100-year level of flood protection will be continued in the future and will reflect No-Action conditions in 2020 in the absence of a higher level of flood protection than could be obtained under the American River Watershed Project.

Comment 41: *The Information Packet said that the population projections would be coming from Bulletin 160-93; CALFED should use California Department of Finance projections.*

Response: CALFED will use California Department of Finance projections.

Comment 42: *How are the elements significant to the analytical process? It seems like another laundry list of things that are already included in the No-Action Alternative analysis.*

Response: The elements are the basic assumptions about present and likely future conditions. There are elements for existing conditions (e.g., the biological opinions about how much water will be delivered) and elements for the No-Action Alternative that will assume that the biological opinions will remain until 2020 or will change. The elements have to be identified as a reasonable basis to analyze impacts.

Comment 43: *Where is the Stockton East Central San Joaquin Irrigation District Conveyance System in the list of projects? It is an existing constructed project that has been in use for 2 years. Where is the Farmington Canal in the list of projects?*

Response: CALFED has included both projects in the screening process. The New Melones Conveyance Project will be included in the No-Action Alternative. The Farmington Dam project, according to U.S. Bureau of Reclamation sources, is considered speculative at this time and should not be included in the No-Action Alternative or cumulative impact analysis.

Comment 44: *Many elements appear to affect how water use and human population projections will be estimated. This ties in well with area-of-origin demands. It seems that there needs to be some clarification of that very important component of the No-Action Alternative.*

Response: Assumptions regarding water use and population projections will be clearly identified in the Programmatic EIR/EIS because the assumptions will form the basis for assessing potential future conditions for the alternatives.

Comment 45: *Regarding water conservation, the Information Packet states that CALFED will use Bulletin 160-93; the assumptions for Butte County in that document are incorrect. Bulletin 160-93 has serious flaws for Butte County.*

Response: CALFED has asked California Department of Water Resources' (DWR's) Statewide planning staff to contact the Valley Water Protection Association, review the water conservation assumptions for Butte County, and discuss and address, where possible, the association's concerns.

Comment 46: *Bay-Delta Water Quality Standards are in the No-Action Alternative. What assumptions will be made about achieving those standards? The State Board's process could have the project solely responsible for those standards as one alternative. In that case, there would be an additional 1 million acre-feet of outflow over D-1485 in dry years and there would be less export pumping. Another possibility is more of a burden on upstream users in which there would be higher tributary inflow on the Sacramento and San Joaquin Rivers.*

Response: The Programmatic EIR/EIS will assume the interim water quality control plan for the existing conditions water quality baseline. This interim plan is currently in place and is supported by the U.S. Environmental Protection Agency's (EPA's) federal standards pursuant to the Clean Water Act. The Programmatic EIR/EIS will examine water supply and water delivery conditions from a representative range of years to develop appropriate assumptions.

Comment 47: *Will CALFED analyze impacts on exotic species? The logic is that there is a massive uncontrolled experiment going on right now that, in a sense, can be inferred as a no action. That could have significant implications, at least some of us believe it could, for the future biological status of the system.*

Response: CALFED will be assessing how the alternatives may change the current and future situation for nonindigenous and exotic species.

Comment 48: *On page 32 of the Information Packet, there is a characterization of the SWRCB's No-Action Alternative. The long-term biological opinion requirements refer specifically to the upstream requirements of the Endangered Species Act relating to temperature requirements on Shasta and do not refer to the Delta environmental opinions. There should be no confusion on that issue.*

Response: The clarification is noted.

Comment 49: *Will CALFED do a scenario on the future state of the levees (e.g., breaks and timing)? It will be difficult to do projections. In the past, the U.S. Army Corps of Engineers (Corps) has grappled with the No-Action Alternative with predictions of which islands will fail and which islands will be reclaimed. That should be a big part of the analysis.*

Response: CALFED intends to rely on information developed by the Corps and DWR on levee failure probability as well as more recent information on seismicity and stability to develop assumptions about the future conditions of levees.

Comment 50: *What will CALFED assume with respect to compliance with National Pollutant Discharge Elimination System (NPDES) permits? There are a large number of permit holders who are not in compliance. This is a serious problem.*

Response: General compliance with NPDES permits will be addressed in the Programmatic EIR/EIS under "Water Quality".

Comment 51: *How will CALFED allocate responsibility for meeting the Bay-Delta water quality standards and allocating a fair share to upstream users? If this is done in the No-Action Alternative, there will be some really serious problems.*

Response: The Phase II environment review will use the SWRCB's interim water quality control plan (95-1 WR) for the existing conditions water quality baseline. This interim plan is currently in place and is supported by EPA's federal standards pursuant to the Clean Water Act. Phase II analysis will examine water supply and water delivery conditions from a representative range of years to develop appropriate assumptions. The Bay-Delta Advisory Council has established a

Finance Work Group and an Assurances Work Group to assist the Bay-Delta Advisory Council and CALFED in resolving issues related to financing mechanisms and fair allocation of costs.

COMMENTS ON CUMULATIVE CONDITIONS

CRITERIA

Comment 52: *National Environmental Policy Act (NEPA) regulations mention cumulative conditions being "reasonably foreseeable" future actions. CALFED has a more rigorous screening process for the No-Action Alternative than for the cumulative impact analysis. Why are there different screening criteria for cumulative impacts versus no action? The analysis for cumulative impacts and no action should include the same actions, but the section on cumulative impacts should be a little broader and analyze interactions. A description of the No-Action Alternative and reasonably foreseeable projects and the cumulative impacts of the No-Action Alternative should be done, with a separate chapter on cumulative impacts of "blue sky" projects.*

Response: Adverse impacts will be compared with those for existing conditions and No-Action Alternative conditions in the Programmatic EIR/EIS. The cumulative impacts section will be an additional analysis that will link past, present, and reasonably foreseeable future conditions. CALFED believes that the screening criteria are appropriate and reduce speculation regarding the likelihood of each project considered being implemented and will provide appropriate baselines for consideration in the Programmatic EIR/EIS.

Comment 53: *The description of Criterion 4 in "Cumulative Impacts" seems to have the same purpose as Criterion 6 in "No-Action Alternative". Criterion 6 is worded more clearly than Criterion 4. Should Criterion 4 be reworded?*

Response: The two criteria are similar and are designed to achieve similar purposes. The difference, however, is that even those potential cumulative actions that could have effects identifiable at the level of detail being considered by CALFED will not be included in the cumulative impacts analysis if they do not have the potential to cumulatively affect the same resources.

Comment 54: *Delta Wetlands is considering flooding certain islands. Part of the CALFED alternatives refer to flooding islands in the Delta as reservoirs. Is there a conflict with having Delta Wetlands as part of the cumulative impact and analysis of island storage as part of the alternatives?*

Response: CALFED does not believe that there is a conflict. The cumulative analysis will identify what effects would result from using additional islands for storage.

Comment 55: *The cumulative conditions should include the CVPIA voluntary marketing of water in addition to the State Drought Water Bank because both will be pulling water out of the same system.*

Response: CALFED is reviewing the status of the CVPIA actions. CVPIA actions are being considered for inclusion in the cumulative impact analysis. The State Drought Water Bank is an approved program that is implemented on an as-needed basis and is therefore included under "Existing Conditions".

ACTIONS

Comment 56: *Where is the proposed CALFED land retirement in the list of projects? Has it been dropped? How will land retirement be addressed (i.e., land retirement as an active program in which land is selectively removed from production versus land that simply goes out of production because of drainage problems, etc.).*

Response: CALFED originally included significant land retirement acreage as a proposal for water supply demand reduction and improvement of water quality. However, in response to scoping comments, discussions with stakeholders and members of the Bay-Delta Advisory Council, and after further evaluation, CALFED will not consider permanent land retirement as a demand management measure.

CALFED will continue to consider permanent land retirement as a potential measure to improve water quality. In this context, land retirement will be considered in an area limited to drainage management problem areas on the west side of the San Joaquin Valley. CALFED recognizes that there are several strategies available to manage agricultural drainage from these lands, so there may be alternatives to land retirement. Further refinement will be necessary to determine the range of acreages considered for retirement to improve water quality. However, this range will not exceed 40,000 acres.

Land fallowing or retirement might take place under two other circumstances. First, during drought periods, local irrigation districts and growers may elect to implement fallowing to make adequate water supplies available to other lands for crop production. This approach would be the result of integrated water resources planning carried out at the local level.

Second, if CALFED reduces physical constraints across the Delta and reduces institutional constraints to water transfers, a more active water market may result.

This water market could prompt local decisions to temporarily fallow or permanently retire land to make water available for other uses. It may be necessary for CALFED to develop mechanisms to guard against social or environmental impacts that could result from an unrestricted water market.

The Bay-Delta Advisory Council has established a Water Use Efficiency Work Group, which will continue to advise CALFED on policy issues related to land retirement.

Comment 57: *The Pardee Reservoir Enlargement project should be listed in the list of cumulative actions because it is the surface storage alternative in East Bay Municipal Utility District's (EBMUD's) water supply action plan, as adopted by its Board of Directors in September 1995.*

Response: The Pardee Reservoir Enlargement project was included in the screening analysis and will be included in the cumulative impact analysis. It will not be included in the No-Action Alternative because it does not yet have environmental documentation or permits.

Comment 58: *What is the process that CALFED will use to assess which components of the CVPIA might be in the alternatives?*

Response: See response to Comment 28.

Comment 59: *The Montezuma Wetlands Project should be added to the list of cumulative actions. The project involves taking approximately 2,000 acres on the eastern side of the Suisun Marsh or the western Delta and converting it into habitat using dredged material out of the Oakland inner harbor and depositing it there.*

Response: The Montezuma Wetlands Project was considered and dismissed for the No-Action Alternative because it does not yet have permits. It will be included in the cumulative impact analysis.

Comment 60: *What does the Delta-Mendota Canal Conveyance Project include? The Bay Area recycling or something else? Westlands has a revised EIR on the street today to do the same thing on the California Aqueduct: Westlands conveyance of nonproject water through the aqueduct.*

Response: Westlands Water District served as the lead agency for two groundwater conveyance projects being proposed by two separate farming groups (the Mendota Pool Group and Canalside Group) within the District. Westlands Water District is not a project proponent and is only serving as lead agency to meet the requirements of the California Environmental Quality Act (CEQA).

The first project involves pumping a maximum of 50,000 acre-feet per year of groundwater into the Mendota Pool for subsequent conveyance to the California Aqueduct using Westlands Water District laterals 6 and 7. An EIR for the project was issued in October 1995. The final EIR has not yet been prepared.

The second project, the Canalside Project, involves a system of wells located along the California Aqueduct that would discharge directly into the aqueduct. This project would pump a maximum of 150,000 acre-feet per year. An EIR for that project was also issued in October 1995. The final EIR has not yet been prepared.

Comment 61: *What is the timeline for the existing conditions technical reports? Will they be available for review?*

Response: The draft technical reports will be available for review in fall 1996.

WRITTEN COMMENTS RECEIVED AFTER THE WORKSHOP

In addition to comments made orally at the meeting, CALFED staff received written comments and questions about the approaches to defining existing conditions, the No-Action Alternative, and cumulative impacts in developing the Programmatic EIR/EIS. The following is a summary of the written comments.

Comment W1: *Under existing conditions, cutbacks in our deliveries are objectionable as a violation of the area-of-origin provisions. Although it happened during the recent drought, this is not acceptable as an existing condition; therefore, using actual deliveries over a period of recent years to establish appropriate assumptions would be flawed in that it would incorporate a historical anomaly.*

With respect to the No-Action Alternative scenario, growth is anticipated. According to the area-of-origin provisions, we are entitled to increase our contract amounts and to take full delivery even during droughts. In the event that limitations and requirements arise that restrict deliveries, the remaining yield should be allocated in accordance with the applicable laws.

Response: CALFED will address these concerns in the Programmatic EIR/EIS in respective chapters regarding affected environment and the No-Action Alternative, with supporting rationale. Also, please see responses to Comments 17, 18, and 23 in the preceding section.

Comment W2: *With respect to existing conditions and instream flow requirements, CALFED proposes to include Federal Energy Regulatory Commission (FERC) flow requirements on the Tuolumne River as part of existing conditions. It is recommended that Tuolumne River flows be based on the current FERC license requirements rather than on the flows provided in the recent FERC settlement agreement.*

The settlement agreement has not yet been approved by FERC, and operations are maintained according to the current FERC license until the agreement has been approved. The agreement is currently undergoing environmental review and, as of this date, it is not known when FERC will act on the agreement.

The current FERC instream flow requirements were in place throughout the proposed period of analysis identified in Tables 2 and 3. Furthermore, the exclusion of yet-to-be-implemented Tuolumne River flows from the existing conditions is in accordance with the EIR for the SWRCB's 1995 Bay-Delta Water Quality Control Plan, which was based on current Tuolumne River flow requirements and historical flows, and the U.S. Bureau of Reclamation's CVPIA Programmatic EIS, which assumes the current Tuolumne River flows under its No-Action Alternative.

Response: The Programmatic EIR/EIS will address the appropriate FERC flow regulations and requirements, both historically and in place when the document is prepared.

Comment W3: *With respect to the No-Action Alternative and instream flow requirements, it is recommended that CALFED use the current Tuolumne River instream flow requirements in developing the hydrologic modeling assumptions for the No-Action Alternative. The recent FERC settlement agreement does not meet all the applicable screening criteria used to define the future actions for inclusion in the No-Action Alternative. It is recommended that the FERC settlement agreement flows be included in the cumulative impact analysis as a reasonably foreseeable future action.*

Response: Final FERC actions and timing of the Programmatic EIR/EIS will determine whether the settlement agreement flows are appropriate under No-Action Alternative or cumulative impact assumptions. See response to Comment W2.

Comment W4: *In regard to Cumulative Impact Analysis Table 6, under State of California projects, the Old River Barrier is excluded from further analysis because it does not meet the criteria for reasonably foreseeable future actions. The Old River Barrier should be evaluated in the cumulative impact analysis because it is currently under active consideration; is currently undergoing environmental review by DWR, DFG, and others; is scheduled to be completed within the*

timeframe being considered for CALFED; and could significantly affect the resources being addressed in CALFED.

Response: Upon further review, CALFED believes that the South Delta Temporary Barriers, of which the Old River Barriers are a part, should be included in the "Existing Conditions" section. The barriers have been in place for several years and were installed to provide relief from litigation. It is expected that the barriers will remain within the Delta until a long-term solution to Delta fishery problems, such as that proposed by CALFED, is achieved.

Comment W5: *Table 6 lists a summary of projects considered for inclusion in the cumulative impact analysis. Table 6 should have a column added to indicate when the action could be completed. This is important because there is a need to balance new water supplies and new environmental improvements so that one segment or feature of the program does not get ahead of another.*

Response: CALFED believes that the table is appropriate as designed. CALFED has established an Assurances Work Group that is examining the issue of phasing the actions making up the alternatives to ensure that each of the four resource categories is balanced with the others.

Comment W6: *Discussion of both the No-Action Alternative and the cumulative actions should include existing and expected advanced treatment elements of water treatment facilities. If the preferred alternative includes an isolated facility for the purpose of improving dissolved oxygen content and bromide conditions at the point of Delta export, that facility would need to be operational prior to the time that treated water purveyors switch to advance treatment methods for other reasons. If this were the case, CALFED's decision process will have been distorted. An appendix could briefly describe each facility so that each community is in a position to confirm that its case is accurately described. For the basic document, however, some representative examples could be used for simplicity.*

Response: Urban water information regarding treatment and facility needs has been developed by the domestic water utilities that take water from the Delta. Work is proceeding in the North Bay and California Aqueducts' service areas as well as in the Delta Mendota and Contra Costa Canal service areas and within the Delta.

One of the major drinking water concerns identified is the need to control the production of disinfection byproducts. These are compounds that are formed when total organic carbon (TOC) and seawater-induced bromide are exposed to disinfectants (chlorine and ozone) used in water treatment. One of the objectives of the planning process is to identify actions that may be taken to minimize the

production of these compounds. That assessment is being done by interested water users and their information will be considered by the CALFED planning process through the urban water quality technical group. CALFED will document the general status and the known future plans of the water treatment facilities. For the Programmatic EIR/EIS, some representative samples will be used.

Some water utilities that use Delta water have already started to make improvements to their facilities in anticipation of changes in the drinking water standards. These changes in the standards are being drafted by both the State of California and EPA.

The analysis conducted in Phase II of the benefits and impacts of any isolated facility would include many more variables than dissolved oxygen and bromide. Other important parameters that are being defined by the Water Quality Work Groups (urban, agriculture, and ecosystem) would be considered. Other variables associated with an isolated facility, such as the location of the intake, screening facilities, conveyance capacity, operational criteria, and other components in the alternative, would all be considered in determining the benefits of and impacts on all Delta uses.

Comment W7: *The Delta Wetlands project will probably begin before the CALFED Programmatic EIR/EIS is ready for public circulation and needs to be added to the No-Action Alternative.*

Response: CALFED is monitoring the status of the Delta Wetlands project approvals. This project is currently included in the list of actions to be addressed in the cumulative impact analysis.

Comment W8: *In several cases, it appears that SWRCB Water Rights Order 95-6 rather than WR 95-1 should be referenced in the Information Packet text. Also, the text should be clear that Water Rights Order 95-6 is not the same as the Interim Water Quality Control Plan.*

Response: This clarification is noted. The Phase II environmental review will use the SWRCB's interim water quality control plan (95-1 WR) for the existing conditions water quality baseline. This interim plan is currently in place and is supported by EPA's federal standards pursuant to the Clean Water Act.

Comment W9: *The Information Packet describes both the existing conditions and the No-Action Alternative as baselines against which to compare specific alternatives. If that is the case, which one of the two will provide the baseline for CEQA and NEPA?*

Will the other alternative provide a second baseline merely for illustrative purposes?

Response: The impacts of the alternatives will be compared with both existing conditions and the No-Action Alternative. Alternatives will be compared with the No-Action Alternative as required under CEQA and NEPA. Because of the complexity of the CALFED Bay-Delta Program and number of projects included within the No-Action Alternative, CALFED will also conduct additional analyses comparing its alternatives to existing conditions. This approach will ensure that all potential impacts and benefits are identified and assist in the identification and selection of a preferred alternative.

Comment W10: *It would be helpful for CALFED to describe the process that it will use to provide for stakeholder review of the analysis. CALFED has conducted several meetings on analysis tools that have been attended by stakeholder representatives. CALFED should describe the process that will be used for this analysis to ensure that all stakeholders have the opportunity to participate in workshops that describe the details of the proposed analysis.*

Response: CALFED remains committed to continuing its active ongoing public involvement process. Stakeholders and other concerned members of the public are provided with opportunities to receive and review publications and information materials, and to attend and participate in a series of meetings and workshops throughout the CALFED planning and evaluation process. Additional materials and workshops will be provided for stakeholders regarding analyses, tools, and rationale, as necessary.

Comment W11: *The resource topics included in Table 1 are not consistent and do not represent the entire range of topics that should be analyzed. As examples, fishery resources are identified but not terrestrial resources; municipal and industrial water supply economics are combined, but commercial fishing and recreational fishing are separate. It is suggested that CALFED modify the list to make it consistent and describe specific elements that will be considered in each topic.*

Response: A detailed list of resource categories is included in Attachment A.

Comment W12: *The scope of analysis for various resource topics listed in Table 1 should be described to indicate whether the analysis is limited to the Bay-Delta estuary, the Central Valley watershed, the service areas, or all three.*

Response: The Programmatic EIR/EIS will include a two-tiered assessment of resources that may be affected by or may affect CALFED actions. The "problem scope" includes the legally defined Delta and Suisun Bay to Carquinez Strait and Suisun

Marsh. The "solution scope" includes the Bay-Delta region within and as part of a larger water and biological resource system that involves the Central Valley watershed, the Southern California service system of existing delivery facilities, the greater San Francisco Bay Area, and portions of the Pacific coastline.

Comment W13: *The discussion of elements of existing conditions focuses almost exclusively on assumptions for CVP and SWP operations. There is no relationship between the description of elements of existing conditions and the listing of resource categories in Tables 2 and 3. The discussion of elements of existing conditions should also describe assumptions about factors other than Delta operations, such as the level of fisheries use, environmental restoration programs in place, and extent of introduced species (e.g., Asian clam), among others.*

Response: The discussion of elements and assumptions for all the issue areas will be described in the Programmatic EIR/EIS.

Comment W14: *The discussion of CVP and SWP facilities on page 16 of the Information Packet should reference the limitations on SWP and CVP operations that are imposed by SWRCB Water Rights Order 95-6.*

Response: CALFED agrees with this comment.

Comment W15: *The discussion of contracts and water rights deliveries presented on page 16 of the Information Packet is overly vague; 1995-level demands should be used as included in Bulletin 160-93. This approach is consistent with the proposed SWRCB EIR and avoids unrealistically low delivery amounts such as those that occurred during recent drought years because of lack of water supply. The presentation should also clarify that 1995 level of demands are normalized to reflect long-term hydrologic conditions, not the actual hydrologic conditions that occurred in 1995.*

Response: CALFED recognizes the dynamic nature of many of the resource categories that will be evaluated in the Programmatic EIR/EIS. Phase II analysis will examine water supply and water delivery conditions from a representative range of years to develop appropriate assumptions.

Comment W16: *The analysis of water conservation should not penalize water users that have already achieved a high level of efficiency by requiring a specified percentage reduction in water usage. Additionally, the phrase "current levels of water conservation" should be described in some detail.*

Response: CALFED intends to encourage and facilitate the efficient use of water. Phase II analysis will examine market-based incentives, efforts to remove institutional

impediments, and regulatory measures to promote water use efficiency. The Bay-Delta Advisory Council Water Use Efficiency Work Group will provide policy recommendations in the area. CALFED will define "current levels of water conservation".

Comment W17: *The Monterey Agreement should be included in existing conditions considering partial implementation and Judge Bond's ruling in the Planning and Conservation League lawsuit.*

Response: See response to Comment 25 in the preceding section.

Comment W18: *The South Delta Temporary Barriers have been operating for several years and are permitted to operate for 5 additional years. They should be included in the existing conditions and No-Action Alternative.*

Response: See response to Comment W4.

Comment W19: *Many projects in Table 4 have not been evaluated for years and have no prospects for development. Although it is recognized that many of these projects are dropped from consideration later, some judgment should be used to eliminate several projects with no prospects for development (e.g., Caliente Creek Feasibility, Mid-Valley Canal).*

Response: CALFED is updating the status of all projects included in Table 4 of the workshop materials.

Comment W20: *Table 4 should also list the Eastside Reservoir, Semitropic Water Bank, and the Inland Feeder as local projects. These projects would be identified as part of the No-Action Alternative using the criteria in Table 5.*

Response: See responses to Comments 29 and 34.

Comment W21: *The elements of the No-Action Alternative should be expanded and should include more complete descriptions.*

Response: CALFED is expanding the list and description of elements for the No-Action Alternative. This information will be included in the Programmatic EIR/EIS.

Comment W22: *As with existing conditions, the normalized 1995-level demands for contracts and water rights deliveries should be used for the analysis.*

Response: See response to Comment W8.

Comment W23: *The analysis of water conservation will need to recognize agencies that have already implemented water conservation measures and ensure that they are appropriately credited for these efforts.*

Response: See response to Comment W16.

Comment W24: *The elements of CVPIA that are not proposed to be included in the No-Action Alternative should be presented.*

Response: CALFED is reviewing the status of CVPIA actions and will clearly identify the status of the various components. See also response to Comment 35 in the preceding section.

Comment W25: *Water quality (including the San Francisco Bay) appears to be missing from the "Existing Conditions" resource categories as an element under "Physical Environment". Also, smaller organisms, such as plankton, are missing from the "Biological Environment" and commercial fishing is missing from "Economics".*

Response: Water quality will be added and will be discussed in detail, as will commercial fishing. The "Biological Environment" section will include a discussion of smaller organisms. See Attachment A.

Comment W26: *The No-Action Alternative elements include the Bay-Delta water quality standards, but not the San Francisco Bay water quality standards, which are separate. Delta outflow into the Bay has a major impact on water quality in the Bay.*

Response: CALFED will discuss the San Francisco Bay water quality standards as part of the No-Action Alternative.

Comment W27: *The historical period for riparian resources should be extended from 1856 to 1995.*

Response: CALFED agrees. The historical period for riparian resources should be the same as the historical period for levees. See also response to Comment 16 in the preceding section.

Comment W28: *The "Existing Conditions" resource category, "Physical Environment", should include watershed area of origin.*

Response: CALFED agrees. Watershed area of origin will be discussed under "Surface Water Hydrology".

Comment W29: *The periods of analysis for resource categories are of grave concern and must reflect an accurate period of average years. Agricultural land use and agricultural economics vary by region and year-type and a range of years may not be as appropriate for one region as it is for another. For example, the suggestion of using the mid-1970s through 1995 would not be a fair range for the Tehama-Colusa Canal water users as their first deliveries were not made until 1976, with the last connections for deliveries completed in 1985. Although several of the districts in the Tehama-Colusa Canal area were still developing during this time, a more accurate period of time for deliveries would be 1986-1989. Water deliveries in the late 1970s and early 1980s were small and were just starting up, and inclusion of these values in any averages would cause an understatement of actual water requirements. 1990 through 1994 were water shortage years that ranged from 25% to 65% of contract supply available for delivery because of the drought and would not accurately reflect the amount of deliveries under normal circumstances for existing conditions.*

Response: See responses to Comments 17, 18, 19, and 20.

Comment W30: *Another consideration for the Tehama-Colusa Canal and Corning Canal area should be the current limitations of deliveries because of the biological opinion regarding the winter-run chinook salmon and the Red Bluff Diversion Dam. When the fish passage problem is solved at the Red Bluff Diversion Dam, it is optimistically anticipated that agricultural land use and agricultural economics will improve because there will be a more reliable water source and water deliveries will increase.*

Response: CALFED agrees with this comment.

Comment W31: *The use of water deliveries as the basis to set a No-Action Alternative will reflect an arbitrarily low water delivery base. Consideration must be made for the recent drought period, as well as consideration for each region and facility separately for various reasons.*

Response: See responses to Comments 17, 18, 19, and 20.

Comment W32: *It would not be appropriate to include the proposed FERC flows on the Mokelumne River under existing conditions for the following reason.*

In February 1996, EBMUD, DFG, and the U.S. Fish and Wildlife Service signed a document entitled "Principles of Agreement", which sets forth flow and nonflow measures for the Lower Mokelumne River. These parties are now completing a Joint Settlement Agreement, consistent with the Principles, to be submitted to FERC in the expectation that FERC will issue an order

implementing the flows set forth in the Principles. However, those flows have not yet been formally ordered by FERC; therefore, they cannot fairly be defined as "existing conditions". For a variety of reasons, FERC may choose to adopt an order containing flows other than those contained in the Principles; therefore, CALFED agreed that the Principles' flows are not appropriate for the "existing conditions".

The existing conditions should include for the Lower Mokelumne River the flows currently required in the 1961 Agreement, as amended, between DFG and EBMUD. That Agreement required EBMUD to build a fish hatchery at Camanche Dam and to release from Camanche Reservoir 13,000 acre-feet annually for fishery protection. This water is in addition to the releases for the Woodbridge Irrigation District, riparian and senior appropriators, and channel losses. If CALFED needs additional details on the existing Lower Mokelumne River flow requirements, EBMUD can provide the necessary information.

Response: The "Existing Conditions" section will discuss the current required flows on the Lower Mokelumne River. The Programmatic EIR/EIS will address the appropriate FERC flows both historically and as part of existing conditions.

Comment W33: *The Principles for the Lower Mokelumne River are appropriate for inclusion in the No-Action Alternative because adoption of the Principles is an action that has a high probability of reaching closure if "existing trends and conditions continue into the future" (page 19, workshop Information Packet).*

Response: CALFED agrees. The Programmatic EIR/EIS will address the appropriate FERC flows both historically and as part of existing conditions.

Comment W34: *Strict application of the CALFED screening criteria for the No-Action Alternative would result in the exclusion of EBMUD's American River CVP contract entitlement. Strict application of the screening criteria would result in a flawed No-Action Alternative because EBMUD is in the midst of an environmental review process that will allow it to take American River water by the end of 2000.*

However, the "Possible Additional Analyses" proposed by CALFED should ensure a complete environmental review. This analysis should be conducted to address issues at the same level of detail as other actions in the No-Action Alternative. The range of flows analyzed must also include EBMUD's American River contractual entitlements, subject to the instream flow requirements set forth by Judge Hodge in the American River litigation (Environmental Defense Fund, Inc. et al. v. EBMUD [1990]). This analysis should also include unused

entitlements on the American River and their respective instream flow constraints.

Response: See response to Comment 30.

Comment W35: *EBMUD's Pardee Reservoir Enlargement project should be included in the cumulative impacts analysis as listed in Table 6 of the Workshop Information Packet. As confirmed by the EBMUD Board of Directors on November 28, 1995, the enlargement of Pardee Reservoir is the best surface storage alternative for EBMUD to pursue. The project would consist of several major components, including enlarging the main dam, modifying or replacing the spillway, modifying or replacing the intake tower, modifying aqueduct facilities, modifying or replacing recreation and shoreline facilities, replacing the Highway 49 bridge over the Mokelumne River, and constructing a secondary dam in the vicinity of the existing Jackson Creek outlet.*

Response: See response to Comment 57.

Comment W36: *The Programmatic EIR/EIS should discuss the evidence that recent centuries and decades have been wetter than the future might be. If there is a reasonable chance that the future might be drier, it follows that long-lasting facilities begun during the next 25 years should be able to adapt to a decrease in rainfall. If the future is to be drier, starting now to preserve farmland that uses water efficiently will become even more important.*

Response: CEQA and NEPA require an analysis of reasonably foreseeable future conditions based on the best available information. No one can precisely predict future weather conditions. Technical analysis must rely on existing data to indicate possible future trends or conditions. CALFED is proposing alternatives that provide adaptive management to allow and change the operations of the Program to adapt to increases or decreases in rainfall.

Comment W37: *Does the Caliente Creek Feasibility Study refer to the Caliente Stream Group that is near the Sand Ridge in Kern County?*

Response: The Caliente Creek Feasibility Study is a project funded 50% by federal funds and 50% by Kern County Flood Control District to determine the feasibility of locating and sizing new levees to protect the towns of Arvin and Lamont, California, from flooding.

Comment W38: *The two following projects should be included in the analysis. First, Stockton East Water District (SEWD) and Central San Joaquin Water Conservation District (Central) entered into contracts for water supply with the U.S. Bureau*

of Reclamation on December 19, 1983. SEWD's contract provides for a supply of 75,000 acre-feet annually and Central's contract provides for a maximum supply of 80,000 acre-feet annually. The New Melones Conveyance System from Goodwin Dam to SEWD and Central was completed in 1992. Water was not delivered in 1993 or 1994; however, water was delivered to the two Districts in 1995 and 1996.

A second project is the U.S. Bureau of Reclamation's study of the Farmington Dam and Littlejohn Creek drainage. This study was initiated in 1996 and is supported by local water districts and the City of Stockton. The study will focus on both flood control and possible water supply. This project should be a candidate for the list of cumulative actions.

Response: Please refer to response to Comment 43.

APPENDIX B

PROJECTS CONSIDERED

C-000929

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: American River Watershed Project

Lead Agency: U.S. Army Corps of Engineers/State Reclamation Board

Project Description: Major features proposed by the study include construction of Auburn Dam, continued reoperation of Folsom Dam to provide a minimum of 400,000 and a maximum of 670,000 acre-feet of storage for flood control, stabilization of levees along the American River downstream of Folsom Dam, and raising of 12 miles of levees along the Sacramento River near Sacramento International Airport.

Project Schedule: A preliminary report and environmental impact statement/environmental impact report (EIS/EIR) were completed in 1991. The Natomas feature was authorized by Congress in 1992 and is currently under construction. The U.S. Army Corps of Engineers (Corps) and State Reclamation Board completed a supplemental information report and supplemental EIS/EIR in early 1996 and submitted their plan to Congress.

Project Status as of August 1996: The Natomas feature is about 75% complete and is scheduled to be finished in March 1997. Funding for levee improvement work on the lower American River and additional work on Natomas-area levees has been included in both the Senate and House versions of the Water Resources Development Act of 1996. These and other "common elements" have a high probability of being authorized, but action on Auburn Dam has been postponed. The House and Senate have agreed to continue the interim operating agreement for Folsom Dam (i.e., 400,000-670,000 acre-feet for flood protection).

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Partially

Criterion 2. Does the action have funding for implementation? Partially

Criterion 3. Does the action have final environmental documentation? Yes. The Record of Decision was filed recently according to Corps staff.

Criterion 4. Does the action have final permits and approvals? Partially

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No. The improved levee system on the American and Sacramento Rivers should be included, whereas a dam at Auburn should not.

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes (partial)

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

U.S. Army Corps of Engineers, American River Watershed Investigation, Feasibility Report, December 1991.

Bob Childs, U.S. Army Corps of Engineers, August 1996, personal communication.

Paul Deveraux, Sacramento Area Flood Control Agency, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Anderson-Cottonwood Irrigation District - Fish Passage

Lead Agency: Anderson-Cottonwood Irrigation District

Project Description: Anderson-Cottonwood Irrigation District diverts up to 400 cubic feet per second (cfs) from the Sacramento River about 4 miles below Keswick Dam. The 450-foot-long diversion dam is a flashboard-type structure constructed in 1917. The flashboards are typically installed in mid-April and removed in mid-November. When the flashboards are installed or adjusted, Keswick releases are reduced to 6,000 cfs or less to provide safer conditions for people working on the dam. A fish ladder is provided at the north end of the dam, but this structure has proven ineffective because of its narrow width and low attraction flow.

When the flashboards are installed, upstream migration effectively stops at the Anderson-Cottonwood Irrigation District dam. This is particularly significant to the badly depressed population of winter-run salmon. The periodic river flow adjustments that accommodate installation and adjustment of the flashboards can disrupt downstream salmon spawning activity, dewater salmon redds, and strand fish in side channel areas. The lowered flows also contribute to increased water temperatures during these periods.

The Upper Sacramento River Fisheries and Riparian Habitat Advisory Council has studied the problem and recommended interim and long-term actions to alleviate problems caused by the dam. The proposed long-term solution is reconstruction of the dam and fish ladder. Interim measures include:

- repairs to the existing fish ladder,
- construction of a new temporary ladder at the south end of the dam, and
- installation of a mechanical system to pull the flashboard without reducing river flows.

Project Schedule: Undetermined.

Project Status as of August 1996: Undetermined. The project is probably dead.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Dee Swearingen, General Manager, Anderson-Cottonwood Irrigation District, Phone 916/365-7329, Fax 916/365-7623, August 1996, personal communication.

Harry Rectenwald, California Department of Fish and Game, Phone 916/225-2368, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Arroyo Pasajero

Lead Agency: California Department of Water Resources and U.S. Bureau of Reclamation

Project Description: Arroyo Pasajero is an ephemeral drainage located in Fresno County near Coalinga. The arroyo drains an area of about 500 square miles and has produced a 450-square-mile alluvial fan. The fan is bisected by the San Luis Canal, which was designed to impound arroyo floodflows west of the canal for subsequent addition to aqueduct flows. The catchment drained by the arroyo, however, contains large deposits of asbestos and several abandoned mines. Some of these abandoned mines are now on the U.S. Environmental Protection Agency's Hazardous Waste Superfund List. The high suspended solid and asbestos content of arroyo runoff precludes its use as an additional source of water for the aqueduct. These conditions pose a number of water and air management problems. The amount of runoff conveyed by the arroyo was underestimated during the canal's design. The surface area now inundated by arroyo floodflows thus exceeds the area stipulated in the existing flood easement agreement. These conditions threaten the integrity of the canal because, under existing circumstances, arroyo floodflows could overtop the western embankment and collapse the eastern embankment. Air quality is compromised because asbestos fibers settle from the flood waters in the pond upstream of the canal foundation. When the ponded area dries following a flood, asbestos fibers remain on the ground surface and become airborne during farming operations.

Project Schedule: The U.S. Army Corps of Engineers completed a reconnaissance study in November 1992 and found a federal interest in the project. A feasibility study was initiated in January 1994 and will be completed by December 1997. A joint EIS/EIR will be part of the feasibility study report. The earliest construction could begin in 2001.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? No

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, Arroyo Pasajero Flood and Silt Deposition Study, January 1984.

Mark Anderson, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Arvin Edison Water Storage District - Water Storage and Exchange Program

Lead Agency: Arvin Edison Water Storage District, Metropolitan Water District of Southern California, and U.S. Bureau of Reclamation

Project Description: The purpose of this project was to improve the dependability of water supplies in the Arvin Edison Water Storage District and to decrease groundwater use. Under this project, the Metropolitan Water District of Southern California (MWD) would store up to 135,000 acre-feet of water in the Arvin Edison Water Storage District groundwater basin. Of this water, up to 20% could be withdrawn for use on 5,000 acres of land that is not currently irrigated with Central Valley Project (CVP) water. In exchange, MWD would take delivery of up to 93,000 acre-feet of CVP water through the California Aqueduct. No exchange would occur until MWD delivered 100,000 acre-feet to the groundwater basin. No groundwater would be exported to MWD.

Project Schedule: The project has been dropped from further consideration and a new water management project has been proposed by Arvin Edison Water Storage District. As of August 1996, Arvin Edison Water Storage District and MWD are negotiating a new project.

Project Status as of August 1996: Not applicable

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Not applicable

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Not applicable

Discussion:.

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Steve Collup, Engineer/Manager, Arvin Edison Water Storage District, Phone 805/854-5573, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Auburn Dam and Reservoir

Lead Agency: U.S. Bureau of Reclamation

Project Description: The Auburn Dam and power plant were to be constructed on the American River below the confluence of the middle and north forks of the river. The project would provide 2.5 million acre-feet of capacity and 600,000 kilowatts of power generation capacity. Construction was authorized and funded for the keyway and foundation excavation in 1965. However, after the 1975 Oroville Earthquake, construction was stopped and the dam was redesigned. In 1980, the Secretary of the Interior determined that the new dam design was safe and recommended that the project be submitted to Congress for reauthorization.

Project Schedule: The project started in 1971 and the Folsom South Area Conjunctive Use Study was initiated in 1987. The project awaits congressional authorization.

Project Status as of August 1996: The project awaits congressional authorization.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Department of the Interior, Budget Justifications, FY 1994.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Cache Creek Basin Study

Lead Agency: U.S. Army Corps of Engineers

Project Description: The Cache Creek Settling Basin was constructed in 1937 as part of the Sacramento River Flood Control Project, authorized by the Flood Control Act of 1917 and modified by the Acts of 1928, 1937, and 1941. The settling basin is bounded by levees on all sides and covers approximately 3,600 acres. The purpose is to preserve the flood capacity of the Yolo Bypass by entrapping heavy sediments carried by Cache Creek. The levees of the settling basin have been modified several times in the past.

The authorized plan of improvement consists of enlarging and raising the existing perimeter levees of the Cache Creek Settling Basin an average of 12 feet to provide 50 years of sediment storage capacity and enlarging the basin's existing levees upstream to County Road 102. The Cobble Weir would also be reconstructed and enlarged. Existing training levees would be degraded and rebuilt adjacent to the western perimeter levee. Also, the entire 3,600 acres within the basin would be purchased in fee, and a national wildlife refuge would be established.

This project was authorized for construction by the Water Resources Development Act of 1986, Public Law 99-662, on November 17, 1986. The project was authorized substantially in accordance with the plans and subject to the conditions recommended in "Cache Creek Basin, California: Report of the Chief of Engineers" dated April 27, 1981 (House Document No. 98-134). The record of decision for the final EIS was filed on November 8, 1983.

U.S. Army Corps of Engineers

The project has been constructed as proposed, with the exception of establishment of a national wildlife refuge. The Corps did not implement the refuge and requested that the U.S. Fish and Wildlife Service (USFWS) implement it. The USFWS recommended that the Corps pursue refuge implementation with the nonfederal sponsor in a letter dated May 21, 1986. The nonfederal sponsor has not expressed interest in implementing this feature. The recommended plan does not include a wildlife refuge.

Project Schedule: The project has been constructed without the refuge.

Project Status as of August 1996: The project has been constructed.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No. The flood control project would not have a direct effect on State Water Project (SWP) or CVP water management.

References:

U.S. Army Corps of Engineers, Sacramento District, Design Memorandum No. 1. Cache Creek Basin, California, Cache Creek Settling Basin, Final General Design Memorandum, January 1987.

U.S. Army Corps of Engineers, Sacramento District, Cache Creek Basin, California, Feasibility Report and Environmental Statement for Water Resources Development, February 1979.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Cache Creek Basin Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: The comprehensive plan for development of the Yolo-Solano area is designed to ensure maximum beneficial use of the land and water resources in the area. The Yolo-Solano Development Plan would serve all irrigable lands that could be reached economically and would provide a municipal and industrial water supply for nearby urban areas. The Yolo-Solano Development would include multipurpose reservoirs on Cache and Putah Creeks. Additional water would be obtained from the Sacramento River by way of the proposed West Sacramento Canals Unit.

Project Schedule: The project has been deferred.

Project Status as of August 1996: The project has been deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No. The project has no direct effect on water management.

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Army Corps of Engineers, Sacramento District, Cache Creek Basin, California, Feasibility Report and Environmental Statement for Water Resources Development, February 1979.

U.S. Bureau of Reclamation, Yolo-Solano Development of the Comprehensive Plan for Central Valley Basin, California, May 1947, Project Planning Report No. 2-4.8-1.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Caliente Creek Feasibility Study

Lead Agency: U.S. Army Corps of Engineers

Project Description: This project, funded 50% by federal funds and 50% by Kern County Flood Control District, will determine the feasibility of locating and sizing new levees to protect the towns of Arvin and Lamont, California, from flooding. Levee alignment is critical in the analysis of the project due to the requirement for splitting the flow around the towns while maintaining a consistent and reasonable levee height. Detention ponds (or sump ponds) are required downstream of the towns to dampen and delay flood crests in downstream structures.

Project Schedule: A feasibility study was completed in July 1996.

Project Status as of August 1996: The project was not recommended for implementation.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Jinji Kobayashi, U.S. Army Corps of Engineers, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Central Valley Fish and Wildlife Management Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: The purpose of this study was to develop a comprehensive baseline of information and possible solutions to complex, controversial water-related fish and wildlife problems in the Central Valley. The study provided a framework of guidelines to use for future water development planning. The study area included both the Sacramento and San Joaquin Valleys and the Delta.

Project Schedule: The project started in the 1970s and reports were completed in the late 1980s.

Project Status as of August 1996: Recommendations have been incorporated into ongoing programs.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Reports were completed in the late 1980s.

Criterion 2. Does the action have funding for implementation? Not applicable

Criterion 3. Does the action have final environmental documentation? Not applicable

Criterion 4. Does the action have final permits and approvals? Not applicable

Criterion 5. Will the action be excluded from the CALFED actions? Not applicable

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Reports were completed in the late 1980s.

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Not applicable

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Not applicable

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Not applicable

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, various reports.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Central Valley Project Operations, Total Water Management Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: This project described Central Valley Project (CVP) facilities at two levels of development. The first level included facilities at the existing level of development. The second level identified facilities at full authorization of the CVP, including incomplete facilities (Sacramento Canals, Auburn-Folsom South, Folsom-Malby, Foresthill Divide, San Felipe Division) and U.S. Army Corps of Engineers projects. The impact of these potential changes on the needs and objectives of the CVP and methods to satisfy these needs by changing CVP operations were compared to base project accomplishments.

Project Schedule: The project started in the 1970s and reports were completed in the late 1980s.

Project Status as of August 1996: Recommendations have been incorporated into ongoing programs.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Reports were completed in the late 1980s.

Criterion 2. Does the action have funding for implementation? Not applicable

Criterion 3. Does the action have final environmental documentation? Not applicable

Criterion 4. Does the action have final permits and approvals? Not applicable

Criterion 5. Will the action be excluded from the CALFED actions? Not applicable

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Reports were completed in the late 1980s.

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Not applicable

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Not applicable

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Not applicable

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, various reports.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Clear Creek Improvements

Lead Agency: California Department of Water Resources and U.S. Bureau of Reclamation

Project Description: Clear Creek is a major tributary to the Sacramento River below Shasta Dam. McCormick-Saeltzer Dam has blocked upstream fish migration in Clear Creek about 8 miles upstream from the creek's mouth since the dam's construction around the turn of the century. In 1963, Whiskeytown Dam was constructed approximately 16.5 miles upstream from the confluence of Clear Creek with the Sacramento River. More than 85% of the natural flow of the creek has been diverted above the dam. The interruption of natural gravel recruitment by construction of Whiskeytown Dam and by streamside gravel mining has severely depleted spawning gravels. Many of the remaining spawning gravels have been damaged by sediment loads derived from the decomposed granite soils of the watershed.

The California Department of Water Resources (DWR) and the California Department of Fish and Game (DFG) have studied the possibility of improving anadromous fish production in Clear Creek. The following improvements have been suggested:

- increased instream flow releases,
- reconstruction of the fish ladder and fish screen at McCormick-Saeltzer Dam,
- reconstruction of spawning riffles below McCormick-Saeltzer Dam,
- purchase or long-term lease of lands along Clear Creek to preserve riparian habitat and limited streamside gravel mining,
- Construction of instream structures for fish cover, and
- Periodic dredging of the pool above McCormick-Saeltzer Dam.

A portion of these improvements, including modifications to the fish ladder and screening facility at McCormick-Saeltzer Dam and reconstruction of spawning riffles below the dam, have been completed. These projects were completed by DFG in 1992 with assistance from DWR. Fish ladder improvements included removal of the concrete cover from the fish ladder and a minor relocation of the entrance. Outmigrating spring-run chinook salmon were planted in a tributary stream in Fall 1990. The remaining work to be completed includes dredging of the reservoir above the dam and acquisition of long-term leases on lands along Clear Creek to preserve riparian habitat.

Project Schedule: This project is ongoing.

Project Status as of August 1996: The U.S. Bureau of Land Management is still negotiating a land trade/purchase deal with local landowners. A contract for design of a new fish ladder has been issued. No official agreement has yet been reached on instream flow releases, but releases have been made during the fall.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Partially

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? No

Include Project in the Cumulative Impact Analysis? No

References:

Resources Agency of California, Upper Sacramento River Fisheries and Riparian Habitat Management Plan, January 1989.

Ralph Hinton, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Coastal Aqueduct

Lead Agency: California Department of Water Resources

Project Description: The California Department of Water Resources (DWR) is proceeding with completion of Coastal Branch Phase II of the SWP. Phase I of the Coastal Branch, completed in 1968, includes two pumping plants and a 15-mile canal extending from the California Aqueduct near the Kings-Kern county line westerly to Devils Den. Phase II will include a 102-mile buried pipeline extending from Devils Den to Tank 5 on Vandenberg Air Force Base in Santa Barbara County. The pipeline will convey 47,316 acre-feet of water to San Luis Obispo and Santa Barbara County. In addition to the pipeline, Phase II facilities will include four pumping plants, five tank sites, and one power recovery plant. The canal, pipeline, and other related facilities are collectively referred to as the Coastal Aqueduct.

In 1985, water demand in the Coastal Branch exceeded dependable supplies by about 53,000 acre-feet in San Luis Obispo County and by 51,400 acre-feet in Santa Barbara County. By 2010, this deficiency is estimated to have increased to 57,800 acre-feet in San Luis Obispo County and remain unchanged at 51,400 acre-feet in Santa Barbara County. Currently, demands in these counties are being met by groundwater overdraft. Deliveries from the Coastal Branch would help meet water demands in these counties and thus reduce the overdraft.

In July, 1992, the notice of determination and statement of findings were filed for Coastal Branch Phase II. This marked completion of the California Environmental Quality Act (CEQA) process for this project and the beginning of final design. Construction began in late 1993.

Completion of Coastal Branch Phase II will result in increased demand for State Water Project (SWP) water. DWR plans to meet this demand without additional diversions from the Sacramento-San Joaquin Delta. In years of deficiencies, Phase II demands will be met by reallocation of existing supplies among SWP contractors. This reallocation would reduce deliveries to the agricultural contracts by about 3%-4% and to municipal and industrial contractors by less than 0.5%.

Operation of the project could alter the timing of existing SWP water exports, which could affect CVP exports.

Project Schedule: Phase I was completed in 1968. The notice of determination was filed in July 1992 and construction began in late 1993.

Project Status as of August 1996: The project is 85%-90% completed and is scheduled to be fully operational by December 1996.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

California Department of Water Resources, Scope of Study for the State Water Project Coastal Aqueduct, Kern County, San Luis Obispo County, and Santa Barbara County, January 1987.

Don Kurosaka, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Coleman Fish Hatchery Improvements

Lead Agency: U.S. Bureau of Reclamation and U.S. Fish and Wildlife Service

Project Description: Coleman National Fish Hatchery was constructed in 1942 as part of mitigation measures to preserve significant runs of chinook salmon affected by construction of Shasta Dam. The hatchery is co-operated with a fish trapping operation at Keswick Dam. Since its construction, the hatchery's effectiveness has been impacted by a variety of problems. Those problems include deterioration of existing facilities, diseased fish, poor water quality, inadequate water supplies and pollution abatement facilities, and insufficient holding and rearing space. Operation of the Keswick fish trap has been impaired by flows that commonly occur during the late-fall and winter chinook salmon runs. Four plans were proposed by the U.S. Fish and Wildlife Service to salvage Sacramento River salmon runs blocked by Shasta Dam. The plans were analyzed and one was recommended for implementation: The Sacramento River, Battle Creek, Deer Creek Plan. Under the plan, it is anticipated that the fall-run chinook salmon could be held in the main stem of the Sacramento River by racks to encourage natural spawning. Excess fish would be trapped and taken to hatchery facilities on Battle Creek. Spring-run chinook salmon would be trapped and transferred to suitable tributaries such as Deer Creek for natural spawning and to Battle Creek for artificial propagation at the Coleman National Fish Hatchery.

The U.S. Fish and Wildlife Service has revised its production and operating objectives for the facilities, which are also old and in need of rehabilitation and replacement. The proposed new program for the facility would improve the facilities to meet the objectives for disease control, temperature control, and optimization of production goals. The plan recommends construction or rehabilitation of water supply systems, water treatment facilities, water temperature control facilities, pollution abatement facilities, a feed storage building, and additional prerelease ponds. In addition, the Battle Creek fish barrier dam would be reconstructed.

Project Schedule: A January 1989 report prepared by the Resources Agency, the Upper Sacramento River Fisheries and Riparian Habitat Management Plan, recommended implementation of the proposed plan. The proposed plan has nine construction phases implemented over a 5-year period. The most important is installation of an ozonation facility to kill the INH virus in water supplied to the hatchery.

Project Status as of August 1996: Upgrading of the facility is continuing. The cold storage and feed storage buildings are complete, and the ozonation facility is in the performance testing phase. The facility should be supplying about 10,000 gallons per minute of ozonated water to incubators by October.

Plans for adding another 20 raceways for production of winter- and late-fall-run chinook salmon are awaiting funding. Options for transporting the fish to tributaries other than Battle Creek, which is

generally too warm for winter-run chinook salmon, are being evaluated by a consultant to the U.S. Fish and Wildlife Service.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Partially

Criterion 2. Does the action have funding for implementation? Partially

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Resources Agency, Upper Sacramento River Fisheries and Riparian Habitat Management Plan, January, 1989.

Tom Nelson, Hatchery Manager, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Colusa Basin Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: The project was designed to evaluate water quality in relation to standards for water supplies used by agriculture, municipal and industrial users, and fish and wildlife. The results of the study indicated that the water temperature in the basin was low for rice and might require warming basins. Several drainage flows had high boron concentrations, although boron concentrations in the Colusa Drain appeared to be appropriate. Turbidity in the drain also was high and could be harmful to fish in the canal. Finally, groundwater had high salinity concentrations and might not be ideal for municipal uses.

Project Schedule: The study was completed in the 1970s.

Project Status as of August 1996: Not applicable

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? The study has been completed.

Criterion 2. Does the action have funding for implementation? Not applicable

Criterion 3. Does the action have final environmental documentation? Not applicable

Criterion 4. Does the action have final permits and approvals? Not applicable

Criterion 5. Will the action be excluded from the CALFED actions? Not applicable

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? The study has been completed.

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Not applicable

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Not applicable

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Not applicable

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation. Various reports.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Contra Costa Pumping Plant Modifications

Lead Agency: U.S. Bureau of Reclamation

Project Description: The Contra Costa Water District (CCWD) pumping plant diverts approximately 120,000 to 130,000 acre-feet per year from Rock Slough. The diversion is unscreened, and limited data are available to determine entrainment or predation losses. Rock Slough is relatively far from the main migration route of Sacramento River chinook salmon, but reverse flow conditions may bring salmon into the vicinity of the diversion. The Contra Costa Canal System is CCWD's main water supply and delivery system, diverting water since 1940 from the Delta. Construction and operation of fish screening facilities and modified practices and operations will occur under Section 3406(b)(5) of the Central Valley Project Improvement Act (CVPIA). Screening facilities are also required to be installed by October 1998 under the Los Vaqueros Biological Opinion for Delta Smelt issued by the U.S. Fish and Wildlife Service in September 1993. Although restoration funds have yet to be identified for any year, funding from the U.S. Bureau of Reclamation's (Reclamation's) energy and water appropriation has been provided for fiscal year 1996. Funding has just recently been made available for planning activities, and discussions are underway with CCWD to determine objectives and courses of action for this screen program. In addition, entrainment monitoring at pumping plant 1 is ongoing per various biological opinions that apply to the operations of Reclamation and CCWD.

Project Schedule: The project consists of three actions. Action 1 was initiated in February 1996. Action 2 was initiated in July 1996 and is scheduled to end in November 1996. Action 3, which includes the construction activities, was initiated in July 1996 and is scheduled to end in September 1997, depending on the level of environmental documentation required.

Project Status as of August 1996: The project is ongoing. The final report for Action 1 is almost complete.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Feasibility and conceptual design have been completed.

Criterion 2. Does the action have funding for implementation? Funding through the design phase is available.

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

Herbert Ng, U.S. Bureau of Reclamation, August 28, 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Delta Wetlands Project

Lead Agency: U.S. Army Corps of Engineers and California State Water Resources Control Board

Project Description: Delta Wetlands Properties is the project proponent for the Delta Wetlands project, which would involve potential year-round diversion and storage of water on two Delta islands owned by the company (Bacon Island and Webb Tract, the "reservoir islands") and seasonal diversion of water for creation and enhancement of wetlands and management of wildlife habitat on two islands owned primarily by the company (Bouldin Island and Holland Tract, the "habitat islands"). Delta Wetlands would improve and strengthen levees on all four islands and install two additional intake siphon stations and a new pump station on each of the reservoir islands. Fish screens would be installed on all new and existing siphons on the reservoir and habitat islands. The project would divert surplus Delta inflows, transferred water, or banked water onto the reservoir islands during periods of availability throughout the year to be stored for later sale and/or release for Delta export or to meet water quality or flow requirements for the Bay-Delta estuary during periods of demand.

Storage Capacity: Total initial water storage capacity of the Delta Wetlands reservoir islands as proposed would be 238,000 acre-feet. Total physical storage capacity may increase in 50 years to 260,000 acre-feet as a result of soil subsidence.

Diversion and Discharge Operations: The Delta Wetlands project would operate within the objectives of the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (1995 WQCP) and consistent with U.S. Army Corps of Engineers' requirements for maximum SWP operations. The timing and volume of diversions onto the reservoir islands would depend on how much water flowing through the Delta is not put to reasonable beneficial use by senior water right holders or required for environmental protection and would therefore be subject to the operational terms and conditions of project approval. Delta Wetlands proposes to develop a procedure to coordinate their operations with State Water Project (SWP) and Central Valley Project (CVP) operations on a daily basis to ensure that their diversions capture only available flows, satisfy the 1995 WQCP's water quality objectives, and maximize the efficiency of their water storage operations.

Mean annual diversions and discharges are estimated to be 222,00-225,000 acre-feet and 188,000-202,000 acre-feet, respectively, based on the historical hydrologic record for 1922-1991 and assuming current Delta standards, facilities, and upstream/export demands for water.

Diversion and Discharge Rates: Diversion rates onto the reservoir islands would vary with pool elevation and water availability. The maximum rate of diversion onto either Webb Tract or Bacon Island would be 4,500 cfs (9,000 acre-feet per day) when diversions begin (when head differential is greatest). The combined maximum daily average diversion rate for all the islands (including

diversions to the habitat islands) would be 4,000 cfs; at this average rate, both reservoir islands could be filled in approximately 1 month.

Water would be discharged from storage on the reservoir islands during periods of demand in any month, subject to Delta regulatory limitations and export pumping capacities, at a combined maximum daily average rate of 6,000 cfs. The combined monthly average discharge rate of the reservoir islands would not exceed 4,000 cfs; at this average rate, both the reservoir islands could be emptied in approximately 1 month.

Operational Limits: The Delta Wetlands diversions, as proposed, could occur in any month but would occur only when the volume of allowable water for export (the lesser of the amount specified by the export limits and the amount of available water) is greater than the permitted pumping rate of the export pumps. This would occur when all outflow requirements are met and when the export limit is greater than the permitted pumping rate, so that water that is allowable for export is not being exported by the SWP and CVP pumps.

Delta Wetlands' proposed project is represented by two operational scenarios that encompass the full range of likely Delta Wetlands discharge operations. Under one scenario, discharges of stored water from the islands would be exported in any month when unused capacity within the permitted pumping rates exists at the SWP and CVP pumps and strict interpretation of the export limits (percentage of total Delta inflow) specified in the 1995 WQCP does not prevent use of that capacity. This would occur when total inflow less Delta outflow requirements is less than the amount specified by the export limits. Under this scenario, the Delta Wetlands discharges would be treated as additions to total Delta inflow, and export of their discharges would be limited to the lesser of the permitted export pumping capacity and the amount calculated under the "percent inflow" export limit, based on the adjusted inflow amount. Under the second scenario, discharges from the islands would be exported during any month when unused export capacity within the permitted pumping rates exists at the SWP and CVP pumps. Under this scenario, export of their discharges would be limited by the 1995 WQCP Delta outflow requirements and the permitted combined pumping rate of the export pumps but would not be subject to strict interpretation of the "percent inflow" export limit.

Project Schedule: The draft environmental impact report/environmental impact statement (EIR/EIS) was distributed in September 1995. As of August 1996, formal endangered species consultation continues with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? Yes; the project is privately funded.

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED Bay-Delta Program action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

John Winther, Delta Wetlands, Inc., 3697 Mt. Diablo Boulevard, Suite 100, Lafayette, CA 94549, Phone 510/283-4216, Fax 510/283-4028, August 1996, personal communication.

Jim Monroe, U.S. Army Corps of Engineers Regulatory Section, 1325 J Street, 14th Floor, Sacramento, CA 95814, Phone 916/557-5266, Fax 916/557-6877, August 1996, personal communication.

Jim Sutton, California State Water Resources Control Board, Division of Water Rights, P.O. Box 2000, Sacramento, CA 95812-2000, Phone 916/657-1366, Fax 916/657-1485, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: East Bay Municipal Utility District/ East San Joaquin County Parties - Groundwater Banking Project

Lead Agency: East Bay Municipal Utility District

Project Description: The East Bay Municipal Utility District (EBMUD) Updated Water Supply Management Program, adopted in 1993, included a groundwater storage/conjunctive use component. The scope of studies included assessment of regional supply sources, including use of the EBMUD American River contract, that could benefit both EBMUD and East San Joaquin County Parties. East San Joaquin County Parties is an association of seven separate entities with varying viewpoints and available resources.

EBMUD's preferred project for recharging up to 300,000 acre-feet per year, the maximum considered reasonably available from the American, Mokelumne, Calaveras, and Stanislaus Rivers, would consist of two phases. Phase 1 facilities include a new pipeline from the terminus of the existing Folsom South Canal to the Mokelumne Aqueducts, a new canal from the Farmington Canal to the vicinity of the Mokelumne River, and new distribution facilities. Phase 1 would develop up to 300,000 acre-feet per year of groundwater recharge in wet years at an estimated capital cost of $346 million. If fully developed, the project would recharge about 10 acre-feet for each acre-foot extracted for use by EBMUD. Potential Phase 2 facilities include offstream reservoirs to regulate flows from the Stanislaus River, a new diversion on the Sacramento River, and/or additional water treatment capacity and distribution systems to deliver treated surface water to municipal and industrial users, replacing groundwater pumping in the Stockton area. Any or all of these facilities could be constructed if Phase 1 fails to correct the groundwater degradation problem. The capital cost of Phase 2 facilities could range from $0-$369 million.

As of July 1996, EBMUD and East San Joaquin County Parties have not reached agreement on how to proceed with this groundwater banking program.

Project Schedule: EBMUD initiated studies with East San Joaquin County Parties in April 1995. EBMUD and East San Joaquin County Parties were negotiating relationships in July 1996.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Pardee Reservoir Enlargement Project

Lead Agency: East Bay Municipal Utility District

Project Description: Elements of the project include increasing the height and width of the main dam, modifying the powerhouse, modifying or replacing the outlet tower, constructing a secondary dam in the Jackson Creek arm, modifying the recreation and shoreline facilities, and constructing a new Highway 49 bridge crossing. The height of Pardee Dam would be raised by 57 feet, thereby increasing the capacity of the reservoir by 150,000 acre-feet.

This project was identified in EBMUD's Updated Water Supply Management Program (see separate description).

Project Schedule: Development of a Memorandum of Agreement with the Federal Energy Regulatory Commission - Summer 1996
Draft EIR/EIS scheduled to be released - mid-1998
Federal Energy Regulatory Commission application filing - Spring 1999

Project Status as of August 1996: Development of the conceptual engineering report is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

East Bay Municipal Utility District, Oakland, California, Final EIR for the Updated Water Supply Management Program, September 1993.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: East Bay Municipal Utility District - Updated Water Supply Management Program

Lead Agency: East Bay Municipal Utility District

Project Description: The programmatic Environmental Impact Report (EIR) for the Updated Water Supply Management Program recommended the following actions for further study:

- *Conservation and U.S. Bureau of Reclamation.* These two demand-side components, which would be added to the East Bay Municipal Utility District's (EBMUD's) existing and adopted conservation and reclamation programs, would reduce the agency's projected 2020 demand for water from 250 million gallons per day to 229 million gallons per day, a reduction of 21 million gallons.

- *Lower Mokelumne River Management Plan.* The Lower Mokelumne River Management Plan specifies flow regimes, reservoir operations, hatchery operations, and instream improvements that would enhance fishery resources in the lower Mokelumne River while maximizing the EBMUD's flexibility in managing a variable water supply, uncertain future demands, and uncertain links between fish populations and fishery management activities. These additional water releases from Camanche Reservoir would protect anadromous fisheries.

- *Aqueduct security.* An approximately 10-mile-long section of the Mokelumne Aqueducts through the Delta would be secured against prolonged outages resulting from earthquake-induced failures, improving the reliability of the system.

- *Groundwater storage/conjunctive use.* Water would be stored in an underground basin when excess surface water supplies were available and withdrawn during drier years when surface supplies were below normal. The groundwater banking and conjunctive use program would occur with local irrigation districts in the vicinity of Lodi.

- *Extend the Folsom South Canal Project to connect the existing Folsom South Canal to the Mokelumne Aqueduct.* This project is the Folsom South Canal Project.

In September 1993, EBMUD published a final EIR for the Updated Water Supply Management Program (State Clearinghouse Number 89030122).

Specific projects identified in the Updated Water Supply Management Program are discussed as separate projects in this report.

Project Schedule: The final EIR was published in September 1993.

Project Status as of August 1996: EBMUD is proceeding with the projects identified in the Updated Water Supply Management Program.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Not applicable; the project is a water supply management program.

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

East Bay Municipal Utility District, Oakland, California, Final EIR for the Updated Water Supply Management Program, September 1993, State Clearinghouse Number 89030122.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Enlarged Cross Valley Canal

Lead Agency: U.S. Bureau of Reclamation

Project Description: This project would provide water to Arvin Edison Water Storage District from the Cross Valley Canal. The water would be provided in exchange for water from the Friant Kern Canal. The exchange water would be used by Fresno County, Tulare County, Hills Valley Irrigation District, Tri-Valley Water District, Lower Tule River Irrigation District, Pixley Irrigation District, Kern-Tulare Water District, Rag Gulch Water District, and Ducor Irrigation District. This project would require approval from the State Water Project (SWP) for wheeling water to Cross Valley Canal through the California Aqueduct.

Project Schedule: The EIS was completed in 1975.

Project Status as of August 1996: The project was deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, Final Environmental Impact Statement for Use of Central Valley Project Water through Enlarged Cross Valley Canal, 1975.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Folsom South Canal Connection Project

Lead Agency: East Bay Municipal Utility District

Project Description: The Folsom South Canal Connection project was authorized for study by the East Bay Municipal Utility District (EBMUD) Board in September 1995. The purpose of the project is to take delivery of American River water pursuant to EBMUD's contract with the U.S. Bureau of Reclamation and to provide a connection from the Folsom South Canal near Grant Line Road or from the end of the Folsom South Canal to EBMUD's Mokelumne Aqueducts. The source of water is the American River at Lake Natoma. This is a stand-alone project not dependent on any additional water supply project components. The project components include the following:

- a pumping plant at the Folsom South Canal;
- a pipeline from the Folsom South Canal to the Mokelumne Aqueducts, including river crossings;
- a pumping plant and storage reservoir at the Mokelumne Aqueducts; and
- a connection to Mokelumne Aqueducts 2 and 3.

EBMUD has begun preparing an EIR and preliminary engineering studies for 16 to 24 miles of 9-foot-diameter buried pipeline or open canal from the Folsom South Canal at Grant Line Road to the agency's Mokelumne Aqueducts. As of July 1996, an alignment route had not been selected. The pumping plant at Grant Line Road or at the end of the Folsom South Canal would have a capacity of 400 cfs (256 million gallons per day). Minimum contract capacity of the EBMUD turnout on the Folsom South Canal is 395 cfs; maximum capacity of Aqueducts 2 and 3, when operated in pumping mode, is 401 cfs. The historical maximum-month aqueduct flow rate is 398 cfs.

Project Schedule: Notice of preparation of an EIR and initial study - January 1996
Initiation of environmental field studies - Summer 1996
Initiation of preliminary engineering - Summer 1996
Draft EIR scheduled to be released - Summer 1997
Construction estimated to start - January 1999
Project anticipated to be operational - December 2000

Project Status as of August 1996: Preliminary engineering is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the Program analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

East Bay Municipal Utility District, July 1996.

Water Supply Management Program, Folsom South Canal Connection, Fact Sheet No. 1.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Folsom-South and Lower American River Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: After construction of the Folsom Dam and Reservoir, the California State Water Resources Control Board (SWRCB) specified minimum flow standards for the American River. To maintain these minimum flows and meet the water demands of the American River division, the U.S. Bureau of Reclamation evaluated several plans to provide water to the area south of Sacramento. These alternatives were evaluated in an Environmental Impact Statement (EIS) published in 1972 and supplemental EISs published in 1973, 1974, and 1975. The recommendations of the studies were to construct the Hood-Clay Connection, the Laguna Canal, and Clay Station Reservoir. The canals would convey up to 1,100 cfs from the Sacramento River, and the reservoir would store up to 150,000 acre-feet of water on Laguna Creek. These facilities would provide recreational and fish and wildlife benefits as well as water supplies.

Project Schedule: The project started in 1972, and a supplemental EIS was completed in 1975.

Project Status as of August 1996: The project was deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, Supplementary EIS, November 1975.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Fresno-Clovis Metropolitan Water Resources Master Plan

Lead Agency: City of Fresno

Project Description: The City of Fresno has a contract with the U.S. Bureau of Reclamation for 60,000 acre-feet of Class I Friant Unit water. Historically, the City of Fresno has used a portion of this water for groundwater recharge. The remainder has been used conjunctively with Fresno Irrigation District for agricultural irrigation. In recent years, the City of Fresno has used most of the contract amount for groundwater recharge.

In 1991, a water resources management plan for the Fresno-Clovis metropolitan area was initiated under joint sponsorship of the City of Fresno, the City of Clovis, Fresno Irrigation District, Fresno Metropolitan Flood Control District, and Fresno County. Under the proposed plan, the City of Fresno would use treated surface water from its CVP contract as a replacement for contaminated groundwater and as a source of supply in areas of insufficient groundwater supply. Consequently, in the future, the City of Fresno will take delivery of the full amount under their contract. Part of this water was proposed to be treated for direct use while the remainder would have been used to recharge groundwater. Treatment and transmission facilities were also required before direct use could be implemented.

The Fresno-Clovis Metropolitan Water Resources Management Plan was dropped, and the City of Fresno and the City of Clovis are each pursuing separate projects. See Fresno Metropolitan Water Resources Management Plan.

Project Schedule: This project was discontinued.

Project Status as of August 1996: This project was discontinued.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Bill Dunn, Water Division, Department of Public Utilities, City of Fresno, Phone 209/498-4136, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Fresno Metropolitan Water Resources Master Plan

Lead Agency: City of Fresno

Project Description: The City of Fresno has a contract with the U.S. Bureau of Reclamation for 60,000 acre-feet of Class I Friant Unit water. Historically, the City of Fresno has used a portion of this water for groundwater recharge. The remainder has been used conjunctively with Fresno Irrigation District for agricultural irrigation. In recent years, the City of Fresno has used most of the contract amount for groundwater recharge.

In 1991, a water resources management plan for the Fresno-Clovis metropolitan area was initiated under joint sponsorship of the City of Fresno, the City of Clovis, Fresno Irrigation District, Fresno Metropolitan Flood Control District, and Fresno County. That project has been dropped from further consideration.

The City of Fresno is pursuing a water resources management plan that identifies the following timeframes:

- 1995-2000: define major water supply projects, including the following:
  - surface water treatment plant,
  - additional recharge capacity,
  - improvements to the transmission grid system,
  - construction of storage tanks, and
  - possible raw surface water supplies for large landscape irrigation projects.
- 2001-2010: implement the projects.
- 2011-2050: develop the water supply program, focusing on objectives, policies, and institutional changes.

Project Schedule: The project is ongoing.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Bill Dunn, Water Division, Department of Public Utilities, City of Fresno, Phone 209/498-4136, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Friant Power Plants

Lead Agency: U.S. Bureau of Reclamation

Project Description: During the late 1970s, the Department of the Interior was seeking means to supplement power production capabilities in the western United States. Among the alternatives considered was development or expansion of hydroelectric power generation capabilities at Central Valley Project (CVP) dams. An appraisal study was completed in 1979 by the Water and Power Resources Service (currently U.S. Bureau of Reclamation) describing the addition of three power plants at Friant Dam. The plants would be constructed at the downstream discharge, at the Madera Canal discharge, and at the Friant Kern Canal discharge. It was estimated that the three plants would have a maximum electric power generation capacity of 22,500 kilowatts and a dependable capacity of 1,000 kilowatts. These estimates were based on no changes occurring in operation of the dam, including no downstream releases or diversions to the canals for significant portions of the year. The plants were recommended for construction in 1979 but have not been authorized to date.

Project Schedule: The project began in 1979.

Project Status as of August 1996: The project is deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? No

Include Project in the Cumulative Impact Analysis? No

References:

Water and Power Resources Services (Reclamation), Friant Power Plants, an Appraisal Report on Adding Hydroelectric Power Plants at Friant Dam, December 1979.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Georgiana Slough Improvements

Lead Agency: California Department of Water Resources

Project Description: Diversion of Sacramento River flows at Georgiana Slough results in diversion of juvenile chinook salmon and eggs, larvae, and juveniles of striped bass and other species into the central Delta. These species are subject to high mortality associated with longer migration routes, higher water temperatures, increased predation, unscreened agriculture diversions, reverse flows, and direct entrainment losses at the Central Valley Project (CVP) and State Water Project (SWP) export facilities. To reduce the impacts of these facilities on fisheries, the tendency to draw fish through the Delta Cross Channel at Georgiana Slough must be reduced.

The California Department of Water Resources and U.S. Bureau of Reclamation are evaluating the effectiveness of structural and nonstructural barriers, such as acoustic and electrical barriers, to reduce the number of fish diverted into these facilities. Nonstructural barriers have been installed and are under evaluation.

Future project tests may include barging hatchery-reared winter-run smolts, installing diverters at Georgiana Slough and the Delta Cross Channel to guide migrating smolts, constructing diversion structures for a fraction of the Sacramento River into the Deep Water Ship Channel to allow smolts to bypass the Delta channels, and installation of a physical barrier at Georgiana Slough.

Project Schedule: The project is ongoing.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Stein Buer, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Geothermal Investigations

Lead Agency: U.S. Department of Interior and U.S. Bureau of Reclamation

Project Description: Under the Geothermal Steam Act of 1970, the Department of the Interior identified candidate sites for development of federally owned geothermal resources. The proposed action would involve leasing federally owned geothermal resources for generation of electric energy. The Department of the Interior reviewed the potential for geothermal energy development in the United States. Approximately 1.8 million acres of federal lands were identified as having significant potential for such development. The results of the investigation and a summary of leasing and operation regulations were presented in an environmental statement for the geothermal leasing program in 1973. It was determined that the most promising prospects for geothermal power generation were in California.

Project Schedule: The project began in 1970.

Project Status as of August 1996: Federal projects have been deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? No

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Department of Interior, Final Environmental Statement for the Geothermal Leasing Program, 1973.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Glenn-Colusa Irrigation District Fish Screen Improvement Project

Lead Agency: U.S. Bureau of Reclamation, Glenn-Colusa Irrigation District, and California Department of Fish and Game

Project Description: The effectiveness of the drum-screen fish screen facility at the Glenn-Colusa Irrigation District Hamilton City Pump Diversion was substantially reduced by significant hydraulic changes in the Sacramento River that lowered water depths at the screens. The low water depths have decreased the effective area of screen surfaces and increased water velocity through the screens. These changes result in juvenile salmon and steelhead impinging on the screens. The low water level also reduced bypass flows used to return juvenile fish to the Sacramento River, resulting in heavy predation by squawfish. A group of federal, State, and local agencies has been investigating solutions to the problems. These studies have identified at least six alternative improvements involving different configurations of screens, a fish bypass, river gradient restoration, and pumping facilities. The project has been divided into two interrelated parts: river gradient restoration and fish screen improvements. River gradient restoration is being led by the U.S. Army Corps of Engineers, while the fish screen improvements are being led by U.S. Bureau of Reclamation and Glenn-Colusa Irrigation District. As an interim measure, the existing screen structure has been upgraded to improve performance while long-term solutions are being developed and constructed.

Project Schedule: The project started in 1989 and is ongoing. Construction is projected to be complete in 2000.

Project Status as of August 1996: Feasibility studies for fish screen improvements were completed in 1994. Environmental assessment for river gradient restoration will be completed by 1997. The design is to be finished in September 1997, with construction expected in spring 1998 and completion in 2000.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Glenn-Colusa Fish Screen Improvement, Glenn-Colusa Irrigation District Fish Screening Alternatives, Task B2.3, 1993.

Glenn-Colusa Fish Screen Improvements, Technical Memorandum Task B7.3, Evaluation of Technical Alternatives, 1993.

Lauren Carly, U.S. Bureau of Reclamation, August 16, 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Interim Reoperation of Folsom Reservoir

Lead Agency: Sacramento Area Flood Control Agency and U.S. Bureau of Reclamation

Project Description: The Sacramento Area Flood Control Agency and the U.S. Bureau of Reclamation (Reclamation) considered options for modifying the current operation of Folsom Dam and Reservoir to provide the people and properties currently occupying the American River floodplain with as much immediate flood protection as possible pending federal authorization and implementation of a long-term project to improve the existing American River flood control system. This goal will be achieved through an agreement between Sacramento Area Flood Control Agency and Reclamation under which Folsom Reservoir's existing flood control diagram governing reservoir storage space allocations and outflows during flood control operations has been revised to permit safe containment of a 100-year or larger flood event in the watershed.

The alternatives selected for environmental review by the lead agencies would increase space available for flood control at Folsom Reservoir by improving the efficiency of flood operations and by requiring a variable reduction in the reservoir pool when a designated amount of empty space is no longer available for flood storage in the three largest hydropower reservoirs (French Meadows, Hell Hole, and Union Valley) in the watershed. Because Folsom Reservoir is not designed for efficient flood releases with a low reservoir pool, substantial increases in empty space in the reservoir yield only marginal increases in flood protection. Therefore, the draft EIR/environmental assessment analyzed only two variable space alternatives: 1) an alternative under which the storage space available for flood control during the winter season would vary between 400,000 and 670,000-acre-feet (the proposed project), and 2) an alternative under which storage space available for flood control during the winter season would vary between 500,000 and 800,000 acre-feet.

Project Schedule: The final EIR/environmental assessment was published in 1994.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

Sacramento Area Flood Control Agency and U.S. Bureau of Reclamation, Interim Reoperation of Folsom Dam and Reservoir Draft EIR/Draft Environmental Assessment, Sacramento, California, August 1994.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Interim South Delta Program

Lead Agency: California Department of Water Resources

Project Description: The purpose of the Interim South Delta Program is to enhance operational flexibility of the State Water Project (SWP), reduce fishery impacts in the Delta, and improve water levels and circulation for Delta agricultural diverters. The alternative analysis for the ongoing study will describe the needs for the project and explain project assumptions, state project benefits and purposes, describe alternatives and screening criteria, analyze all alternatives and combinations of alternatives to identify the most practical and least environmentally damaging alternative, and define steps to avoid, minimize, and compensate for any fish and wildlife losses due to implementation of the project.

In July 1982, South Delta Water Agency filed a lawsuit against the State of California and the federal government over the effects of Central Valley Project (CVP) and SWP operations on the south Delta. The suit alleged that CVP operations on the San Joaquin River unlawfully reduce the quantity of water and degrade the quality of water flowing in the San Joaquin River to the south Delta. The suit maintained that operations of SWP and CVP pumps violate South Delta Water Agency's rights by lowering water levels, reversing flows, and diminishing the influence of the tides. Furthermore, it was alleged that the Secretary of the Interior's designation of the Stanislaus River as the basis for allocation of water from New Melones Reservoir violates South Delta Water Agency's rights by not including the south Delta in the basin.

The first measures to mitigate the effects of the CVP and SWP pumps were to install rock barriers at Middle River and Old River to improve south Delta water flows and water quality (see Old River project description). Other measures have included installation of recorders on Tom Paine Slough, dredging around the control structure in Tom Paine Slough, installation of portable pumps on Tom Paine Slough to augment water supplies, and modification of the Clifton Court Forebay operation to improve water levels in south Delta channels.

California Department of Water Resources, U.S. Bureau of Reclamation (Reclamation), and South Delta Water Agency recently agreed to a draft contract that settles the 1982 lawsuit. The agencies are now involved obtaining approval in Congress for the project. The draft contract includes provisions to test and construct barrier facilities in certain south Delta channels to provide the agency with an adequate agricultural water supply. It also provides for interim releases from New Melones Reservoir by U.S. Bureau of Reclamation to resolve the litigation relating to San Joaquin River flows.

Other projects have increased the capability of the Banks pumping plant to deliver SWP water from 6,400 cfs to 10,300 cfs. However, diversions are restricted to 6,990 cfs a day and 6,680 cfs for a three-day average. One goal of this project is to obtain a Section 10 permit from the U.S. Army

Corps of Engineers to operate the pumps at full capacity. Other parts of the project could include additional forebay intake structures; limited channel dredging in Old River, Victoria Canal, North Canal, and Middle River; control structures to change flow patterns in the San Joaquin River; and fish protection measures.

Project Schedule: This project is ongoing.

Project Status as of August 1996: The project has been authorized by the State of California and Reclamation under the settlement agreement and is proceeding. All barriers are in place, including, for the first time, the Grant Line barrier. Most barriers will be pulled out by the end of September, depending on flow conditions. The draft Environmental Impact Statement (EIS) was released August 12, 1996 and will undergo public comment and review until December 6, 1996. A final EIS could be released as soon as April 1997.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Probably not

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

Administrative Draft Interim South Delta Program, Section 404(b)(1), Alternative Analysis Report, August 12, 1993.

Mike Ford, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Kaweah River Investigation

Lead Agency: U.S. Army Corps of Engineers

Project Description: This project is intended to provide improved flood protection and to develop additional irrigation water for the area. The scope includes raising the height of the terminus dam and improvements to flood protection structures in the vicinity of the city of Visalia. The project is currently in the feasibility phase. This includes a gross appraisal of the economic viability of the project, with consideration of general fish and wildlife requirements. The principal sponsor locally is the Kaweah Delta Conservation District of Tulare County.

Project Schedule: The feasibility report will be completed in September 1996 and forwarded to the U.S. Army Corps of Engineers headquarters for review. The next phase, preconstruction engineering and design, will require about 3 years.

Project Status as of August 1996: This project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Kellogg Unit Reformulation Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: The Kellogg Unit Reformulation Study was conducted in cooperation with California Department of Water Resources and the Contra Costa Water District (CCWD). The original Kellogg Unit studies proposed relocating the Contra Costa Canal intake and constructing an offstream reservoir on Kellogg Creek as a means of resolving water quality and reliability problems in the Contra Costa Canal service area. The Kellogg Unit Reformulation Study, as described in the 1988 project draft Environmental Impact Statement (EIS), addresses only relocation of the canal intake. Construction of an offstream storage reservoir was addressed in a separate investigation. The reformulation study identified and evaluated six alternatives for changing the canal intake from Rock Slough to another location. The recommended plan, as presented in the draft EIS, would relocate the canal intake from Rock Slough to Clifton Court Forebay and construct an open, concrete-lined canal (the Highline Canal) and a 500 cfs pumping plant. CCWD conducted an evaluation under its Los Vaqueros Project and has proposed a different recommended alternative, including construction of an offstream storage reservoir, associated canals and pipelines, and a new intake and pumping plant on Old River for reservoir uses.

Project Schedule: Draft EIS prepared for Kellogg Reformulation Study August 1988 - No further study has been conducted.

Project Status as of August 1996: The Kellogg Unit Reformulation Study was authorized by Public Law 96-375 October 3, 1980. CCWD has since undertaken a portion of the project as part of the Los Vaqueros Project.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Planning Report Draft EIS Kellogg Reformulation Study, August 1988.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Kern Water Bank

Lead Agency: California Department of Water Resources

Project Description: The Kern Water Bank is a conjunctive use groundwater storage program undertaken by the California Department of Water Resources (DWR) and seven local water agencies. The purpose of the project is to develop storage capacity to augment the State Water Project's (SWP's) dependable supply. The project would store water in the Kern County groundwater basin and would be managed in coordination with local surface water and storage facilities. The project consists of eight elements that would be developed in successive phases. The first phase of the project is the Kern Fan element, which would be developed and operated by DWR.

The Kern Fan element would consist of up to 1,000 acres of recharge basins and 30 extraction wells. Under an agreement with the City of Bakersfield, existing municipal recharge basins would be used when available. Water would be transferred from the California Aqueduct through the Cross Valley Canal to Bakersfield. The project would include construction of turnouts along the Cross Valley Canal, a metering structure, and several other appurtenant structures. Maximum annual recharge for the Kern Fan Element would be 90,000 acre-feet. At present, the project includes 20,000 acres of land, a storage capacity of 100,000 acre-feet, and 30 groundwater extraction wells. No conveyance, metering, or recharge facilities have been constructed.

Project Schedule: The project is ongoing.

Project Status as of August 1996: The Kern Fan element was transferred to Kern Water Bank Authority on August 16, 1996. Construction of parts of the Semitropic element is underway while other elements are still under review. The Fan element could go back into escrow if an appeal filed by opponents to the project is successful.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

California Department of Water Resources, Kern Water Bank Status Report.

Jack Erickson, California Department of Water Resources, August 1996, personal communications.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Kesterson Reservoir Cleanup

Lead Agency: U.S. Bureau of Reclamation

Project Description: The Kesterson Reservoir became the terminus of the San Luis Drain when construction of the drain was halted because of funding limitations and disagreements over potential environmental impacts of drainwater discharge into the Delta (the original terminus). Selenium from the drainwater has contaminated Reservoir sediments, vegetation, and groundwater, as well as San Luis Drain sediments. Discovery of high selenium and other trace element concentrations in the San Luis Drain and Kesterson Reservoir necessitated studies to identify the source and containment/treatment methods available to reduce the risk of environmental damage. In 1985, the State Water Resources Control Board directed the U.S. Bureau of Reclamation to submit a plan to clean up the San Luis Drain and Kesterson Reservoir. A projectwide EIS was filed in 1986 for closure of the San Luis Drain and Kesterson Reservoir. Initially, the ephemeral pool areas were filled.

Project Schedule: Environmental documentation was completed in 1986 and ephemeral pools were filled.

Project Status as of August 1996: Monitoring studies are ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No. It does not directly affect water management.

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? In progress

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. This project would not directly affect water management.

References:

U.S. Bureau of Reclamation, Mid-Pacific Region, in cooperation with U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers, Final EIS, Kesterson Program, October 1986.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Keswick Power Plant Enlargement

Lead Agency: U.S. Bureau of Reclamation

Project Description: Keswick Dam, reservoir, and power plant are located on the Sacramento River nine miles downstream of Shasta Dam. The reservoir serves as an afterbay for releases from the Shasta and Spring Creek power plants. During the late 1970s and early 1980s, Keswick Power Plant was operating at 90,000 kilowatts, which is above its rated capacity of 75,000 kilowatts. The Keswick Power Plant Enlargement project considered increasing the power generation capacity at Keswick Dam by constructing a 15,000 kilowatt power plant below the existing power plant. After preliminary evaluation, it was decided that the cost-benefit ratio of the project was unfavorable. No environmental impact analysis or financial feasibility studies were conducted.

Project Schedule: An appraisal study of the power generation capabilities was completed in 1982.

Project Status as of August 1996: The project has been deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Department of Interior, U.S. Bureau of Reclamation, Keswick Power Plant Enlargement, Central Valley Project, Concluding Report, February 1982.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Lake Oroville Enhancement Study

Lead Agency: California Department of Water Resources

Project Description: The project is currently in the implementation phase and was created in response to Federal Energy Regulatory Commission (FERC) requirements for the Lake Oroville/Thermalito facilities. The purpose of the project is to improve recreation and fishing benefits to the Oroville and Thermalito areas. The study has been completed and provides suggested activities for enhancement. Implementation and funding of the activities is to be provided by the local agencies involved in FERC licensing of the Oroville/Thermalito facilities. Most activities are not connected with water releases from the facilities, but rather relate to fish planting, bike trails, and other user-related improvements.

The project is primarily for enhancement of the project area and does not directly affect water releases from the Oroville/Thermalito facilities. It is being developed in phases, with environmental documentation being prepared separately for each phase.

Project Schedule: The project is ongoing.

Project Status as of August 1996: The project is ongoing.

CALFED Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Roland Williams, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Lake, Yolo, Napa, and Solano Counties Groundwater Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: This project assessed groundwater conditions in Lake, Yolo, Napa, and Solano County under five development scenarios. The study is related to the West Sacramento Canal Unit Study, which evaluated potential construction of reservoirs and conveyance facilities to serve Yolo and Solano County. The study evaluated potential impacts to groundwater resources under alternative development scenarios, recommending further studies to estimate groundwater pumpage rates, surface water diversions, average well production rates, and costs for using groundwater. It also recommended expanding the groundwater elevation monitoring program to include the entire study area, expanding the groundwater quality monitoring program into the lower Napa Valley to determine the extent of seawater intrusion, and revising groundwater maps based on the expanded monitoring program.

Project Schedule: The initial study was completed in 1975.

Project Status as of August 1996: The project has been deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Not applicable

Criterion 2. Does the action have funding for implementation? Not applicable

Criterion 3. Does the action have final environmental documentation? Not applicable

Criterion 4. Does the action have final permits and approvals? Not applicable

Criterion 5. Will the action be excluded from the CALFED actions? Not applicable

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, Four Counties Study, April 1975.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Los Banos Grandes Dam and Reservoir Study

Lead Agency: California Department of Water Resources

Project Description: The Los Banos Grandes facilities would consist of an offstream storage reservoir located near the San Luis Dam and Reservoir, with associated pumping and generating plants and conveyance channels. Water would be banked south of the Delta when winter flows are high. These flows would be pumped from the Banks pumping plant in the Delta through the California Aqueduct and then to the Los Banos Grandes reservoir for storage. Power would be generated when water is released from the main reservoir into the Los Banos Reservoir to the California Aqueduct during summer months. Operation of the reservoir would be similar to that of the San Luis Reservoir, except that Los Banos Grandes would reserve about two-thirds of its stored water each year to provide supplies during periods of water shortage. The project would improve SWP reliability by increasing the dependable yield of the project by more than 250,000 acre-feet, an estimate made prior to establishment of Delta export restrictions defined by biological opinions for winter-run chinook salmon and delta smelt.

The California Department of Water Resources (DWR) has been investigating other potential south-of-the-Delta storage sites on the west side of the San Joaquin Valley. The current list includes ten watersheds with 20 potential dam locations identified. Meanwhile, evaluation of the Los Banos Grandes site has continued. A threatened and endangered species survey has been completed, a pilot program to investigate re-establishment of sycamore woodland habitat has been initiated, a study to evaluate the effects of canals on the movement of kit fox throughout the study area was commissioned by DWR and conducted by the California Department of Fish and Game, and 1990 cost estimates for the project have been updated.

Project Schedule: The draft EIR for the Los Banos Grandes Facilities was completed in December 1990. The reconnaissance study is ongoing.

Project Status as of August 1996: A progress report on Phase I of the reconnaissance study entitled Alternative South-of-the-Delta Offstream Reservoir Reconnaissance Study will be released by the end of September 1996. Phase II may be completed by next spring.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No. Offstream storage may be considered by CALFED.

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

California Department of Water Resources, Los Banos Grandes Facilities Draft EIR, December 1990.

Mark Cowin, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Los Vaqueros Reservoir Project

Lead Agency: Contra Costa Water District

Project Description: The objectives of the project are to improve water quality; minimize seasonal water quality changes of delivered water, especially in late-summer periods when salinity concentrations rise in the Delta; and improve reliability of water supplies during extended emergencies. Contra Costa Water District has completed several water quality studies for the reservoir project. Facilities included in the project are the Los Vaqueros Dam and Reservoir (a 200-foot high earthen dam and 100,000 acre-foot reservoir); the Old River pumping plant (250 cfs) and pipeline facilities (a 7-mile pipeline); a transfer reservoir and pipeline (a 4-million-gallon reservoir and 5-mile pipeline); the Los Vaqueros Pipeline (9 miles); and relocation of Vasco Road and several utilities.

Project Schedule: The project is under construction and is scheduled to be complete and operational by 1997.

Project Status as of August 1996: The project is under construction.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

Contra Costa Water District, 1992 Los Vaqueros Project EIR/EIS.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Lower San Joaquin River and Tributaries Levee Improvements

Lead Agency: U.S. Army Corps of Engineers

Project Description: The federal government completed a levee improvement program along the San Joaquin River from its confluence with the Tuolumne River to the Merced River by 1972. The State of California evaluated improvement of the river channel upstream of the confluence with the Merced River. The proposed project would construct an Eastside and Chowchilla Bypass to divert flood flows at Gravelly Ford.

Project Schedule: The project has been deferred.

Project Status as of August 1996: The project has been deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Army Corps of Engineers, Clearing and Snagging Project, San Joaquin River and Tributaries, January 1987.

Ken Meyers, U.S. Army Corps of Engineers, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: M&T/Parrott Pumping Plant and Fish Screen Project

Lead Agency: U.S. Fish and Wildlife Service, California Department of Fish and Game, and M&T Chico Ranch

Project Description: The project involves construction and operation of a water supply station on the Sacramento River downstream of Big Chico Creek. The pump station would supply water to M&T Chico Ranch, a U.S. Fish and Wildlife Service refuge, and the California Department of Fish and Game Llano Seco Refuge. The pump station was designed to divert a maximum of 150 cfs from the Sacramento River. The project was proposed to replace the existing pump station on Big Chico Creek, which has had detrimental effects on the spring-run chinook salmon population.

Project Schedule: An environmental assessment/initial study and mitigated negative declaration/finding of no significant impact was prepared and distributed in April 1996 and certified in May 1996.

Project Status as of August 1996: The project is currently under construction and is 25% complete.

Project Schedule: The project should be constructed and operating by the end of 1996.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Jones & Stokes Associates, Inc., Environmental assessment/initial study for the M&T Ranch/Parrott pumping plant and fish screen project, 1996, prepared for the U.S. Fish and Wildlife Service, Sacramento National Wildlife Refuge, and California Department of Fish and Game Region 2.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Marysville Lake

Lead Agency: U.S. Army Corps of Engineers

Project Description: The Marysville Lake project includes development of a reservoir and power generation plants on the Yuba River in the lower Yuba River basin. Marysville Lake would be created by construction of a dam on the Yuba River at Parks Bar, approximately 15 miles upstream from Marysville; an afterbay dam 3 miles downstream from the Yuba River Dam; and a dam on Dry Creek. This pumped-storage project includes provisions for hydroelectric power generation, water conservation, flood control, recreation, and fishery enhancement.

A 420-foot-high concrete gravity dam with earth abutments would be located on the Yuba River, and a 360-foot-high earthfill dam would be located on Dry Creek. A power plant with one turbine and two pump-turbines (total capacity 1,350 megawatts) would be constructed downstream of the Yuba River dam. The power plant would be designed to accommodate two additional pump-turbines that would increase total power generation to 2,250 megawatts. Water would be released through the main power plant to produce power during peak demand hours when electrical needs are the greatest. When power demand is low, the pump-turbines would pump water from the afterbay to the lake so the water could be reused for power production. An afterbay dam would be used to reregulate releases from the main power plant. Water would be released through the power plant via a multilevel temperature control intake structure at the Yuba River dam. A small baseload power plant would be constructed downstream of the afterbay dam and would include two turbines with an installed capacity of 15 megawatts.

The impoundment would inundate the existing Englebright Dam on the Yuba River and two power plants, the PG&E Old Narrows plant and the Yuba County Water Agency New Narrows power plant. The Yuba River arm of Marysville Lake would extend upstream to a point immediately below the existing Yuba County Water Agency's Colgate power plant of the New Bullards Bar project. The Colgate power plant would be modified by construction of a tailwater depression system.

When completed, the overall project would be operated by the U.S. Army Corps of Engineers and the irrigation and power functions would be integrated into the Central Valley Project (CVP). It is estimated that the project would provide an annual firm water supply of 150,000 acre-feet to the CVP, with deficiencies of 25% in 4 years during a 7-year critical dry period.

Project Schedule: The draft EIS was prepared in 1977.

Congress authorized construction with the Flood Control Act of November 7, 1966 (Public Law 89-789), which was modified by Section 159 of the Water Resources Development Act of 1976 (Public Law 94-587) to authorize Phase 1 design memorandum studies. There has been no recent action on this project.

Project Status as of August 1996: The project was deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED Bay-Delta Program action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Army Corps of Engineer District, Sacramento, California, Draft EIS Marysville Lake, March 1977.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Marysville-Yuba River Levees Study

Lead Agency: U.S. Army Corps of Engineers

Project Description: The project is currently in the construction phase and is 100% federally funded. It consists of levee reconstruction at 13 sites along the 134 miles of the Sacramento River Flood Control Project levees. Work includes about 17 miles of toe drains, 4 miles of slurry cutoff walls, a 1-mile drainage ditch, and 10 miles of levee-raising to restore the design freeboard. The environmental assessment has been issued and focuses on maintenance/repair aspects of the project. Some disturbance to nonfish and wildlife habitats during construction will occur. The impact will be mitigated by restoration of riparian habitat during construction.

Project Schedule: Construction began in 1994 and is scheduled for completion by 2000.

Project Status as of August 1996: Final environmental documentation has been completed. Two of the four contracts called for the project have been awarded and construction for the entire project is about 30% complete.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Phil Lee, U.S. Army Corps of Engineers, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Merced County Streams Study

Lead Agency: U.S. Army Corps of Engineers

Project Description: The purpose of this project is to increase flood protection for the town of Merced. The project consists of two dry dams and levee restoration work near Merced.

Project Schedule: The final environmental impact statement has been completed. A general design memorandum is scheduled for completion by the end of fiscal year 1997.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Perry Metzger, U.S. Army Corps of Engineers, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Metropolitan Water District - Eastside Reservoir Project

Lead Agency: Metropolitan Water District of Southern California

Project Description: The proposed Eastside Reservoir, along with comprehensive groundwater management, conservation, and reclamation programs already implemented, is needed to ensure reliable delivery of water. The purpose of the project is to almost double Southern California's surface storage capacity, to secure 6 months of emergency storage in the event of a major earthquake, and to provide additional water supplies for drought protection and peak summer needs. The Eastside Reservoir site is located in the Domenigone and Diamond Valleys, 4 miles southwest of the city of Hemet. Storage capacity of the reservoir is 800,000 acre-feet, or 269 billion gallons of water. The reservoir's surface area is 4,500 acres and is 4.5 miles long and more than 2 miles wide. The water source for the project is the Colorado River Aqueduct, delivered through the San Diego Canal into the reservoir forebay; water will be pumped from the forebay into the reservoir. Also, SWP water from Lake Silverwood will flow by gravity into the reservoir through the new 12-foot-diameter, 45-mile-long Inland Feeder, connecting with the new 9-mile-long Eastside Pipeline. There will be 12 pumps at 5,000 horsepower each and one 1,000 cfs hydraulic control structure at the Colorado River Aqueduct.

Project Schedule: Excavation for the project began in 1995. Dam construction is scheduled to begin in late 1996.

Project Status as of August 1996: The project is under construction.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

Metropolitan Water District of Southern California, Eastside Reservoir Project at a Glance, 1996.

Metropolitan Water District of Southern California, Eastside Reservoir Project Draft EIR, 1991, State Clearinghouse Number 89081422.

Bob Muir, Public Information Officer, Metropolitan Water District of Southern California, Phone 213/217-6930, Fax 213/217-6500, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Metropolitan Water District - Inland Feeder Project

Lead Agency: Metropolitan Water District of Southern California

Project Description: The purpose of the Inland Feeder project is to:

- more than double the water delivery capacity of the east branch of the State Water Project, providing Southern California with up to 650 million gallons per day of additional water;
- help replenish local groundwater basins;
- improve the quality of Southlands' drinking water; and
- provide an important source of water for several of the district's reservoirs, including the Eastside Reservoir Project.

The project begins in the Devil Canyon area north of the city of San Bernardino and ties into Metropolitan Water District of Southern California's Colorado River Aqueduct south of Lake Perris, near the city of San Jacinto. The delivery capacity of the 43.5-mile-long, 12-foot-diameter pipeline is about 1,000 cfs, or about 646 million gallons per day. The water source is the east branch of the California SWP from Lake Silverwood. Estimated project cost is $1.1 billion.

One of the purposes of the project is to feed water into the Eastside Reservoir, which is currently under construction; therefore, although final permits and approvals have not been obtained, it is reasonable to assume that the project will be constructed because it conveys water to Domenigone Reservoir.

Project Schedule: Completion date is 2001.

Project Status as of August 1996: The project is in design.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

Metropolitan Water District of Southern California, Inland Feeder Project at a Glance, 1996.

Bob Muir, Public Information Officer, Metropolitan Water District of Southern California, Phone 213/217-6930, Fax 213/217-6500, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Mid-Valley Canal (San Joaquin Conveyance Project)

Lead Agency: U.S. Bureau of Reclamation

Project Description: The Mid-Valley Canal would be a major conveyance structure for the East Side Division in the San Joaquin Valley. The canal would convey Central Valley Project (CVP) water to serve portions of Merced, Madera, Fresno, Kings, and Tulare County, and, by exchange, furnish a water supply to Kern County. Water also would be provided to three national wildlife refuges and two State wildlife management areas. The project would include a well field in the Sacramento Valley near wetlands, providing up to 170,000 acre-feet of water, and canals to deliver water from the Kings River and the Cross Valley Canal to the Friant Kern Canal.

Project Schedule: The project was deferred.

Project Status as of August 1996: The Mid-Valley Canal was authorized for study by the Federal Reclamation Laws Act of June 17, 1902, (22 Stat. 388) and by amending and supplementing acts. According to the project report's preface, plans for the Mid-Valley Canal were based on a CVP water supply that is no longer available due to Delta outflow requirements. No federal action is contemplated until a feasible water supply is located.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED Bay-Delta Program action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, Mid-Valley Canal East Side Division, A Report on the Mid-Valley Canal Feasibility Investigation, January 1981, Summary Study 1990.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Monterey Agreement

Lead Agency: Central Coast Water Authority

Project Description: Shortages of water deliveries from the State Water Project (SWP) prompted SWP contractors (both agricultural contractors and municipal and industrial [urban] contractors) to consider amendments to their water supply contracts with the California Department of Water Resources (DWR). Some contractors have considered litigation to resolve differences over water allocations. To avoid litigation and to make the SWP operate more effectively for all contractors, DWR and the contractors have engaged in mediated negotiations to settle their disputes, resulting in the Monterey Agreement.

The Monterey Agreement contains 14 principles. The five major program components of agreement implementation are as follows:

1. *Revisions to the methodology used to allocate water among contractors.* Under the Monterey Agreement, water from existing SWP facilities is to be allocated based on entitlement. In years when SWP supplies are less than contractor requests, water will be allocated in proportion to each contractor's share of total contractor entitlements to water, with no initial reduction in supplies to agricultural contractors. Existing categories of surplus, wet weather, and make-up water are replaced by a single, interruptible water category allocated on the basis of entitlement.

2. *Retirement of 45,000 acre-feet of agricultural entitlement.*

3. *Transfer by sale, between willing sellers and willing buyers, of 130,000 acre-feet of entitlement from agricultural contractors to urban contractors.* This includes the potential for sales to noncontractors as well as for entitlement transfers among urban contractors.

4. *Changes in control of the Kern Fan element of the Kern Water Bank.* This change in control would be a sale or long-term lease (with option to purchase) of the Kern Fan element and related assets by DWR to designated agricultural contractors. The Kern Fan element lands were acquired by DWR for purposes of banking SWP water. The Kern Water Bank is defined as any opportunity to recharge SWP water in Kern County, storing surplus water from the Sacramento-San Joaquin Delta during wet years for extraction during dry years to increase the SWP yield.

5. *Changes in the manner in which the Castaic Lake and Lake Perris terminal reservoirs may be operated.* The Monterey Agreement provides that SWP contractors who participate in repayment of costs for the Castaic and Perris reservoirs will have an opportunity to directly utilize a portion of the reservoirs' capacities to optimize their water storage and supply

operations to meet local contractors needs and help ensure a firm water supply. To this end, these contractors have proposed that approximately 50% of the active storage capacity of these reservoirs be available for withdrawal and use by the contractors under a set of operational conditions.

Project Schedule: The draft program EIR was published in May 1995. The final program EIR was published in October 1995.

Project Status as of August 1996: DWR is implementing the project and transferred the Kern Fan element to the local agencies on August 9, 1996.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

Science Applications International Corporation. Santa Barbara, California, Final Program EIR for Implementation of the Monterey Agreement, Lead Agency: Central Coast Water Authority, Buellton, California, State Clearinghouse Number 95023035.

Dan Masnada, Executive Director, Central Coast Water Authority, Phone 805/688-2292, August 1996, personal communication.

David Sandino, Staff Counsel, California Department of Water Resources, Phone 916/653-5129, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Montezuma Wetlands Project

Lead Agency: Solano County and U.S. Army Corps of Engineers

Project Description: Levine-Fricke proposes to deposit dredged materials on a diked bayland site near Collinsville in Solano County, adjacent to the Suisun Marsh, to restore 1,822 acres of tidal wetlands on a 2,394-acre site. The site is currently used as grazing land and includes approximately 1,620 acres of nontital, federally regulated wetlands and 202 acres of uplands. The proposal calls for constructing facilities to receive up to 20 million cubic yards of approved dredged materials from ports and navigation channels in the San Francisco Bay Estuary and to distribute the materials over the site. This deposition would return the subsided land surface to an elevation range at which marsh could establish. The top 3 feet of dredged sediment would have contaminant levels that have passed tests for suitability in a tidal wetland environment. After filling the subsided baylands, the levees would be breached to enable tides to ebb and flow over the constructed foundation of tidal channels and low marsh plains. The marsh design includes high marsh and marsh ponds that would seldom be reached by tides. Project construction is proposed to be in four phases to minimize temporary losses of wetlands during construction and to facilitate engineered placement of the dredged materials. Each completed phase would be hydrologically independent with a single connection to Montezuma Slough or the Sacramento River. Phases would range in size from about 240 acres to 600 acres.

Project Schedule: The draft Environmental Impact Report(EIR)/Environmental Impact Statement (EIS) was released in October 1994. The final EIR/EIS is scheduled to be released in September 1996 and certification of the EIR/EIS is anticipated in December 1996. Permits are anticipated to be received by mid-1997.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? Yes. The project is privately funded.

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

Solano County Department of Environmental Management and U.S. Army Corps of Engineers San Francisco District, Montezuma Wetlands Project Draft EIR/EIS, 1994, State Clearinghouse Number 91113031, Corps Public Notice No. 19405E26.

Doug Lipton, Levine-Fricke, Phone 707/433-2094, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: New Melones Conveyance Project

Lead Agency: Stockton East Water District and Central San Joaquin Water Conservation District

Project Description: Stockton East Water District and Central San Joaquin Water Conservation District entered into contracts with the U.S. Bureau of Reclamation for a supply of 75,000 acre-feet and 80,000 acre-feet, respectively, from the New Melones project. A conveyance system from Goodwin Dam was constructed in 1992. Water was not delivered in 1993 or 1994 but was delivered to the two Districts in 1995 and 1996. The cost of these facilities was about $65 million, funded by Stockton East Water District, Central San Joaquin Water Conservation District, and water purveyors within the City of Stockton.

Project Schedule: The project has been constructed.

Project Status as of August 1996: The project is operational.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5: Will the action be excluded from the CALFED actions? Yes

Criterion 6: Would the effects of the action be identifiable at the level of detail being considered for CALFED Bay-Delta Program Analysis? Yes

Discussion: The project is operational.

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

City of Stockton.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: New Melones Reservoir Resource Management Plan

Lead Agency: U.S. Bureau of Reclamation

Project Description: The U.S. Bureau of Reclamation prepared a resource management plan for New Melones Reservoir. This effort involved gathering existing natural, cultural, and social resource data and entering it into a geographic information system. Based on the data, sensitivity zones were developed and alternatives configured. Management strategies were developed to address management of the natural resources, recreational conflicts, archaeological resources, caves, lake level fluctuation, and grazing leases.

Project Schedule: The project began in 1994. Current efforts ended in September 1995 due to lack of funds.

Project Status as of August 1996: National Environmental Policy Act (NEPA) compliance work is scheduled to start again in October 1996 and be finished in 1997.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? None are needed.

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Mike Petrinovich, U.S. Bureau of Reclamation, August 26, 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: New Melones Reservoir Water Management Study - Short-Term

Lead Agency: U.S. Bureau of Reclamation

Project Description: This study, which includes Farmington Dam and Little Johns Creek drainage, was initiated in 1996. It is supported by local water districts and the City of Stockton. The study is designed to develop an interim plan of operation for New Melones Reservoir and will include both flood control and water supply concerns for those residing in the Stanislaus River Basin.

Project Schedule: The study began in 1996.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No.

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Possibly

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Al Canlish, U.S. Bureau of Reclamation, August 21, 1996, personal communication.
Ed Formosa, City of Stockton, July 25, 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: North Delta Water Management Program

Lead Agency: California Department of Water Resources

Project Description: The north Delta study area encompasses the island and channels of the Delta south of the Sacramento River, north of the San Joaquin River, east of the city of Rio Vista, and west of Thorton. The area encompasses about 170,000 acres, nearly 90%of which is irrigated. The Sacramento, Mokelumne, Cosumnes, Dry Creek, Morrison Creek, and Deer Creek water courses converge in the north Delta. The objectives of the program are to alleviate flooding and adverse fishery impacts in the north Delta, reduce reverse flows in the lower San Joaquin River, improve water quality, and improve SWP flexibility. The preferred alternative includes dredging of the main stem and the South Fork of the Mokelumne River, enlarging the Delta Cross Channel gate structure, and testing of mitigation river collector wells and fish screens. The estimated cost of this alternative was $290 million in 1990.

Project Schedule: The project was suspended early in 1996.

Project Status as of August 1996: The project was subsumed under the CALFED process.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Some elements will most likely be included under one or more CALFED alternatives.

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

California Department of Water Resources, North Delta Program Draft EIR/EIS, November 1990.

Stein Buer, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Offstream Storage

Lead Agency: U.S. Bureau of Reclamation

Project Description: This project evaluated several reservoir sites in the western San Joaquin Valley for storing water during the winter when high water flows occur in the Delta. The water was to be stored for use in summer months when water quality restrictions reduce the amount of water that can be diverted from the Delta. The study also considered water storage on wetland habitat to both increase wetland water supplies in the winter and to provide offstream storage. The study indicated that offstream storage would require construction of extensive dam facilities. The study also indicated that wetland habitat constraints would result in relatively large habitat losses compared to the volume of water stored. In addition, seepage could account for greater than a 50% loss of stored water at existing habitat sites.

Project Schedule: Studies were completed in the late 1980s.

Project Status as of August 1996: No further study is planned.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Studies were completed in the late 1980s.

Criterion 2. Does the action have funding for implementation? Not applicable

Criterion 3. Does the action have final environmental documentation? Not applicable

Criterion 4. Does the action have final permits and approvals? Not applicable

Criterion 5. Will the action be excluded from the CALFED actions? Not applicable

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Studies were completed in the late 1980s.

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, Offstream Storage Study Evaluation of Wetland Habitat for Offstream Storage.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Old River Barrier

Lead Agency: U.S. Bureau of Reclamation and California Department of Water Resources

Project Description: Historically, the California Department of Water Resources (DWR) has placed a temporary rock barrier at the confluence of the head of the Old River and the San Joaquin River during the fall of low-flow years under an agreement with the California Department of Fish and Game. This barrier directs San Joaquin River water that would otherwise flow into the Old River down the San Joaquin River toward the central Delta. The additional flow in the San Joaquin River improves dissolved oxygen levels for salmon migration upstream to spawning grounds along the river's tributaries.

Since 1986, DWR, the U.S. Bureau of Reclamation, and the South Delta Water Agency have negotiated and signed several agreements committing the parties to developing long-term solutions to water supply problems in the south Delta. The first step is to construct temporary facilities prior to developing long-term solutions. As a result of this program, the Temporary Barriers Project, three barriers have been constructed, in various combinations, since 1987 at: (1) Middle River near Highway 4, (2) Old River near the Tracy Pumping Plant, and (3) Old River near its head. The barriers allow water to flow upstream into south Delta channels on the flood tide, then close during the ebb tide to hold water in the channels. The barriers have been installed and operated from April through September to coincide with the south Delta's irrigation season. A fourth barrier in Grant Line Canal was installed for the first time this year.

Project Schedule: The project is ongoing.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No. Installation of a permanent barrier at Old River is being considered by CALFED.

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No. The project is in operation and part of existing conditions.

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Mike Ford, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Pine Flat Fish and Wildlife Restoration Project

Lead Agency: U.S. Army Corps of Engineers

Project Description: The purpose of the project is to develop more water to restore and re-establish fish and wildlife resources along the Kings River (including native species and trout, but not anadromous fish). The scope of the project could include raising the dam at Pine Flat Reservoir or creating offstream storage, adjusting water delivery schedules from the Kings River, and importing Central Valley Project water through an exchange/transfer process utilizing existing conveyance facilities.

Project Schedule: Following a reconnaissance study completed in 1995, the project was found to merit federal action. The feasibility study was begun in January 1996 and will take 3 years to complete.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

California Department of Water Resources, Kern Water Bank Status Report.

Perry Metzger, U.S. Army Corps of Engineers, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Red Bank Dam Study (Cottonwood)

Lead Agency: California Department of Water Resources

Project Description: This proposed project in Tehama County would involve construction of two dams: Dipping Vat on Red Bank Creek and Schoenfeld on the South Fork of Cottonwood Creek. Gross capacity would be 104,000 acre-feet at Dipping Vat and 250,000 acre-feet at Schoenfeld. Water stored in Dipping Vat Reservoir could be released to Schoenfeld via a tunnel connecting the two reservoirs. The project would provide water supply, flood control, and fisheries benefits.

The California Department of Water Resources conducted preliminary feasibility investigations and prepared cost estimates, but no economic evaluations or environmental studies have been prepared. There is presently no activity on the project aside from monitoring of stream flows.

Project Schedule: The project has been deferred.

Project Status as of August 1996: The project has been deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Possibly

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Ralph Hinton, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Red Bluff Diversion Dam Fish Passage Program

Lead Agency: U.S. Bureau of Reclamation

Project Description: U.S. Bureau of Reclamation is evaluating possible long-term solutions to fish passage and water delivery problems at the Red Bluff Diversion Dam, where the "8 months gates-up" operation under the National Marine Fisheries Service Biological Opinion has substantially reduced, but not eliminated, fish passage problems and has created water delivery problems during planting and harvest seasons. A research pumping facility was installed in 1993 and 1994 to evaluate potential means of pumping water while using existing drum screens. Engineering and biological evaluations are still in progress, and interim measures have been developed to supply water during the "gates-up" period. Field and laboratory studies of fish ladder alternatives are in progress, as is a hydrological study to guide analysis of alternatives.

Project Schedule: The project was initiated in 1989.

Project Status as of August 1996: Evaluations of pumps and ladder designs are ongoing. A hydrology study will be completed in 1997. The program is scheduled for completion in 2000.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

U.S. Bureau of Reclamation, Appraisal Report Red Bluff Diversion Dam Fish Passage Program, February 1992.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Redbank-Fancher Creek Study

Lead Agency: U.S. Army Corps of Engineers

Project Description: This is a local flood control project. Detention dams are being constructed on Fancher and Redbank Creeks to impound flood flows and encourage percolation of stormwater into the groundwater basin.

Project Schedule: Construction was completed in 1993.

Project Status as of August 1996: Construction has been completed and ownership transferred to local authority.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No. The project would not have a direct effect on SWP or Central Valley Project water management operations.

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Not applicable

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Not applicable

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Not applicable

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Not applicable

Include Project in the Cumulative Impact Analysis? Not applicable

References:

U.S. Army Corps of Engineers, Final EIS, Redbank and Fancher Creeks, July 1980.

Perry Metzger, U.S. Army Corps of Engineers, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Refuge Water Supply Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: U.S. Bureau of Reclamation, assisted by U.S. Fish and Wildlife Service and California Department of Fish and Game, conducted the Refuge Water Supply Study. The study identified potential water sources and delivery systems to provide dependable water supply to ten national wildlife refuges, four wildlife management areas, and private wetlands within the Grasslands Water District. The study identified four levels of water supply: 1) Level 1 was the firm amount of water provided under existing water rights or contracts; 2) Level 2 was the average amount of water the refuges had received for approximately 10 years; 3) Level 3 was the amount of water required for full development of lands that were currently being managed; and 4) Level 4 was the amount of water required for full development of the land lying within the 1988 refuge boundaries. With enactment of the Central Valley Project Improvement Act (CVPIA), the Secretary of the Interior is required by 2002 to provide each refuge with the quantity and delivery schedule of water in accordance with the March 1989 report and the full supply of water described in the San Joaquin Basin Action Plan Report. The May 1995 report summarizes the results of refinement activities and presents alternatives being carried forward for environmental compliance, including use of existing private and public facilities, construction of new facilities, or a combination thereof and conjunctive use.

Project Schedule: The Refuge Water Supply Study was completed in 1989 and updated in 1992. Environmental compliance activities will conclude in 1996 with identification of a preferred alternative for each refuge. Development of the Refuge Water Supply Implementation Plan will be finalized in September 1996.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

U.S. Bureau of Reclamation, Report on Refuge Water Supply Investigations, Central Valley Hydrologic Basin, California, March 1989.

U.S. Bureau of Reclamation, Refuge Water Supply Study, Plan Coordination Team Interim Report, July 1992.

U.S. Bureau of Reclamation, Decision Document, Report of Recommended Alternatives, Refuge Water Supply and San Joaquin Basin Action Plan Lands, April 1995.

U.S. Bureau of Reclamation, Refuge Water Supply Conveyance Alternatives Refinement Memorandum, May 1995.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Sacramento Area Water Forum and the Foothill-Forum Water Group - Water Forum

Lead Agency: The City and County of Sacramento through the City-County Office of Metropolitan Water Planning

Project Description: The Sacramento Area Water Forum and the Foothill-Forum Water Group, formed in 1993, is a stakeholder coalition composed of six major interest groups, including business and agricultural groups; water interests in Sacramento, Placer, and El Dorado Counties; environmental interests; citizen groups; and local government. The group's mission statement is: "Through community participation, formulate a plan for the region which will provide an adequate, safe and reliable water supply in an environmentally sound and cost effective manner. The plan shall provide for the efficient management of available surface water, groundwater, reclaimed water resources, and water conservation to meet both the region's water needs through the year 2030 and protect our environment." The group has been negotiating a range of proposals that are under serious consideration to meet the group's two major, equally important objectives:

- Provide a reliable and safe water supply for the region's economic health and planned development through the year 2030. Key features are as follows.

  - *Additional surface water supplies.* Even with aggressive water conservation, recycling, reclamation, and conjunctive use proposals, additional diversions of surface water will be required to meet the region's water needs to the year 2030. This additional water would be diverted from the Sacramento, American, and Feather Rivers to meet the needs of existing residents, businesses, and agriculture and future growth in approved general plans. These diversions would be accompanied by conditions on their use that would ensure protection of the fishery, wildlife, recreational, and aesthetic values of the lower American River.

  - *Water conservation and reclamation:* Water districts would continue and expand programs designed to help their customers use water efficiently. When reasonable and feasible, water would be reclaimed and recycled for appropriate uses.

  - *Safe water supply:* Any water forum agreement must ensure that water supplies are protected from contamination and drinking water meets or exceeds all applicable State and federal requirements.

  - *Increased "conjunctive use":* Water suppliers would expand the water management program that relies more heavily on use of surface water during wet periods when it is available and on increased use of wells during drier periods.

- Preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River. Key features are as follows.

  - *Reasonable and feasible alternatives:* Water suppliers would pursue alternatives whenever they are reasonable and feasible: reclamation, conjunctive use, alternative sources, etc.

  - *Improved fishery flow pattern:* An improved pattern of fishery flow releases from Folsom Reservoir would be implemented to improve the fall-run chinook salmon fishery.

  - *Reduced daily flow fluctuations:* The water forum would work with the U.S. Bureau of Reclamation to reduce wide variations in daily flows.

  - *Habitat improvements:* Habitat improvements could include spawning gravel management, better temperature control for water released from Folsom Reservoir for the lower American River, and maintenance of riparian vegetation along the river.

Project Schedule: A notice of preparation of an EIR was released in August 1995.

Project Status as of August 1996: Undergoing environmental review.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

Water Forum, Progress Toward A Regional Water Agreement, January 1996.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Sacramento Basin Fish Habitat Improvement Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: The U.S. Bureau of Reclamation initiated the Sacramento Basin Fish Habitat Improvement Study, a four-year study that would investigate temperature improvement measures for the upper Sacramento and Trinity Rivers. The study evaluated a full range of management options, including both structural and operational measures for the Shasta/Trinity river division facilities of the Central Valley Project (CVP). The project was completed in 1994 with construction of two temperature control curtains in Whiskeytown Lake.

Project Schedule: The study was initiated in 1991 and completed in 1994.

Project Status as of August 1996: The project has been completed.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? The project was completed in 1994.

Criterion 2. Does the action have funding for implementation? Not applicable

Criterion 3. Does the action have final environmental documentation? Not applicable

Criterion 4. Does the action have final permits and approvals? Not applicable

Criterion 5. Will the action be excluded from the CALFED actions? Not applicable

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No. The project is part of existing conditions.

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes. The study was completed in 1994.

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, Appraisal Report Red Bluff Diversion Dam Fish Passage Program, 1992.

Planning report/final EIS, Shasta Outflow Temperature Control, 1991.

Federico Barajas, U.S. Bureau of Reclamation, August 14, 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Sacramento Municipal Utility District-El Dorado County Water Agency - Upper American River Project

Lead Agency: Sacramento Municipal Utility District

Project Description: This project was the latest version of hydroelectric facilities proposed for the upper American River. Previous projects proposed consisted of the South Fork American River Project and the Alder Creek Project. This project would have consisted of expanding the existing Upper American River Project by adding the Jones Fork hydroelectric power plant, the Iowa Hill pumped-storage facility, the South Fork diversion, and the Lower Ice House Reservoir. The Lower Ice House Reservoir had a proposed capacity of up to 30,000 acre-feet. The water would have been controlled and used by El Dorado County Water Agency for domestic and commercial water supply purposes on an as-needed basis during times of drought. The proposed Jones Fork facility would have included a 35-megawatt hydroelectric power plant enabling Sacramento Municipal Utility District (SMUD) to increase operational flexibility and meet peak electrical emergency demands. The Iowa Hill facility would have included a 250-megawatt pumped-storage facility.

As of August 1996, this joint project had been discontinued and the individual projects put on hold. SMUD continues to study potential projects but has no active projects on the upper American River.

Project Schedule: Not applicable.

Project Status as of August 1996: Discontinued.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Possibly

Include Project in the Cumulative Impact Analysis? No

References:

Craig Jones, Supervisor of Supply-side Evaluation and System Integration, SMUD, 916/732-5368, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Sacramento River Drainage and Seepage Utilization Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: The study area for this project extended from Stony Creek to Suisun Bay, totaling 575,000 irrigable acres, with the Colusa Basin and the Sacramento River being primary areas of concern. The study evaluated alternatives to alleviate seepage and drainage problems caused by water imports through the Tehama-Colusa Canal and the limited capacity of the Colusa Basin Drain. Ten alternatives were evaluated. Seven were not economically justified. One alternative, which addressed extension of the Colusa Basin Drain, appeared to be economically justified if the drain water supply could be delivered to Solano County for reuse. Project feasibility investigations for that alternative continued under the Solano County Water Project feasibility study. The study also recommended formation of a regional drainage entity and rerouting of drainage flows from the Tehama-Colusa Canal back to existing drain and canal facilities.

Project Schedule: U.S. Bureau of Reclamation Studies began in 1977.

Project Status as of August 1996: Feasibility authorization was not sought. The U.S. Bureau of Reclamation encouraged local planning agencies to resolve the drainage problems.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Summary Information from Past Sacramento River Drainage and Seepage Investigations, October 1976.

U.S. Bureau of Reclamation, Sacramento River Drainage and Seepage Utilization Working Document, February 1977.

U.S. Bureau of Reclamation, Sacramento River Drainage and Seepage Utilization Investigation, California, Appraisal Report, June 1980.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Sacramento River Flood Control System Evaluation

Lead Agency: U.S. Army Corps of Engineers

Project Description: The project is evaluating 1,000 miles of levees, overflow weirs, and flood bypass channels. Integrity of the structures will be evaluated to determine reconstruction needs. The study area is located along the Sacramento River from its confluence with Deer Creek (upstream of Chico) to Knights Landing.

Project Schedule: The final programmatic EIS/EIR was completed in 1992. Phase I has been completed. Phases II and III are under construction. Phases IV and V are still in the planning stages.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes (partial)

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Certain elements may be implemented but, because of funding constraints, not all.

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes (partial)

References:

Phil Lee, U. S. Army Corps of Engineers, August 1996, personal communication.

U.S. Army Corps of Engineers, Sacramento River Flood Control System Evaluation, May 1992.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Sacramento-San Joaquin Delta Levees Subvention Project

Lead Agency: California Department of Water Resources

Project Description: This project was created within California Senate Bill 34, which became law in March 1988. The project was authorized to provide $120 million over a 10-year period ($12 million per year) for upgrading and maintaining delta levees. The project consists of two primary components. The first component, defined as the Delta Levees Subvention Program, consists of an annual $6 million budget available to make payments or reimbursements to local flood control districts for upgrading and maintaining levees within their individual jurisdictions. The second $6 million per year is specified for upgrading and maintaining the eight western Delta islands (e.g., Sherman, Twitchell, Webb) and the communities of Thornton and Walnut Grove.

Project Schedule: The project is currently funding improvements to existing facilities and is scheduled to continue through 1999.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes (project by project)

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

Renny Porterfield, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: San Francisco Bay Area and San Joaquin Valley Water Reuse Project

Lead Agency: City and County of San Francisco and U.S. Bureau of Reclamation

Project Description: The City and County of San Francisco began investigating collection, conveyance, and reuse of reclaimed wastewater from the San Francisco Bay Area in 1981. In 1991, the City and County of San Francisco updated the findings contained in the original 1981 study and found that the alternatives originally recommended were no longer economically and environmentally feasible. Water quality limits on discharge of treated wastewater to San Francisco Bay, as regulated by the State Water Resources Control Board, have become increasingly stringent. To meet these limits, dischargers would have had to produce very high quality reclaimed water of a value that could be put to other uses. The study indicated that the effluent quality would be adequate for all types of irrigation. However, the cost of reusing the water within developed areas would be prohibitive because of complex infrastructure needs and because existing developed areas could not use the large volume potentially available (400,000 acre-feet per year). Therefore, an alternative was developed to convey the reclaimed water to agricultural areas in the San Joaquin Valley. The reclaimed water would replace some of the CVP water supplied to farmers within the Delta-Mendota Canal Unit. Nondiverted CVP water could then be made available for other uses, such as meeting Delta water quality standards.

Project Schedule: The project was revised and is now called the Central California Regional Water Recycling Project.

Project Status as of August 1996: This project was discontinued; see Central California Regional Water Recycling Project.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Wendy Iwata, City of San Francisco, Public Works Department, Phone 415/558-4022, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: San Francisco - Central California Regional Water Recycling Project

Lead Agency: City and County of San Francisco

Project Description: The City and County of San Francisco is evaluating alternatives for regional water recycling. Early in the study, the team focused on local recycled water demands, the cost of planned recycling projects, and the projected quality of recycled water. Four alternatives are being evaluated from environmental, social, and marketability perspectives:

- *Export to the Delta-Mendota Canal:* Local reuse of recycled water would be maximized. Recycled water not be used locally would be used primarily for agricultural irrigation within the Delta-Mendota Canal service area. Mitigation of salts imported into the Delta-Mendota Canal area would occur by way of several alternatives, including: reducing the salt content of recycled water prior to export, using in-valley salt management solutions, constructing an ocean outfall south of Half Moon Bay, or possibly using San Francisco's Southwest Ocean Outfall.

- *Export to the Sacramento Delta Area:* Local reuse of recycled water would be maximized. Recycled water not used locally would be used to repel the intrusion of salt water into the Delta from San Francisco Bay.

- *Export to the Sacramento Delta and/or Salinas Area:* Local reuse of recycled water would be maximized. Recycled water not used locally would be used to repel the intrusion of salt water into the Delta and/or for agricultural irrigation south of the Bay Area. Recycled water for irrigation would be used in place of existing water supplies pumped from the ground. Excessive groundwater pumping has caused seawater to migrate into the Salinas area's groundwater supply and has impacted groundwater quality.

- *Indirect Potable Reuse:* Local reuse of recycled water would be maximized. Wastewater would be repurified through advanced processes so it could be blended with fresh water in reservoirs for ultimate use as potable water. Supplementing Bay Area water supplies and/or exporting the water to supplement SWP supplies are two subalternatives under consideration.

The Step 1 Feasibility Study concluded that by the year 2020 a total of 650,000 acre-feet of recycled water or "recycled water flow" could be produced annually within the Bay Area. Step 2 of the Central California Regional Water Recycling Project will include preparation of a regional water recycling plan to evaluate:

- projections for local recycling;

- the feasibility of a regional distribution system;
- the technical, economic, and environmental feasibility of regional recycling;
- key issues raised in Step 1, including water quality, salt management, project costs and benefits, and marketability of crops; and
- institutional constraints to regional recycling.

Project Schedule: Step 2 is anticipated to take more than 2 years to complete. The goal of the study team is to finish Step 2 by October 1998.

Project Status as of August 1996: The project is ongoing. Regional alternatives found to be feasible in Step 2 will be carried forward to a site-specific EIR/EIS prepared during the Step 3 study process. The U.S. Bureau of Reclamation, California Department of Water Resources, and numerous Bay Area agencies have committed to support Step 2.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Wendy Iwata, City of San Francisco, Public Works Department, Phone 415/558-4022, personal communication..

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: San Luis Unit Drainage Plan

Lead Agency: U.S. Bureau of Reclamation

Project Description: The U.S. Bureau of Reclamation prepared a plan to collect, treat as necessary, and dispose of 60,000 to 100,000 acre-feet of subsurface drainwater from Westlands Water District. The plan and draft EIS, completed in December 1991, applied to all five water districts in the unit: Westlands, Panoche, San Luis, Broadview, and Pacheco. The study determined that, using current technology and given environmental restrictions, no financially feasible means exist to treat and dispose of 60,000 to 100,000 acre-feet of highly saline drainwater. Therefore, the recommended plan included a combination of measures that would reduce subsurface drainage, control releases of drainwater to the San Joaquin River, and continue development of potential treatment technologies. The plan was successfully challenged by Westlands Water District as not meeting the requirements of court judgment. However, U.S. Bureau of Reclamation, under the Central Valley Project Improvement Act, and the California Department of Water Resources, under a 1992 program, can purchase land under the land retirement program.

Project Schedule: A draft EIS has been prepared.

Project Status as of August 1996: The EIS has not been finalized and the plan has not been adopted. The project is likely terminated.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, San Luis Unit Drainage Program Draft EIS, December 1991.

U.S. Bureau of Reclamation, San Luis Unit Drainage Program Plan Formulation Appendix, December 1991.

Mike Delamore, U.S. Bureau of Reclamation, August 14, 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Semitropic Water Storage District - Semitropic Groundwater Banking Project

Lead Agency: Semitropic Improvement District of the Semitropic Water Storage District and Metropolitan Water District of Southern California

Project Description: This long-term water storage project is designed to recharge groundwater and reduce overdraft, increase operational reliability and flexibility, and optimize the distribution and use of available water resources between Semitropic Water Storage District (Semitropic) and Metropolitan Water District of Southern California (MWD). During periods when such water is available, MWD would deliver a portion of its State Water Project (SWP) entitlement water to Semitropic, which could use the water in lieu of pumping groundwater for irrigation or to recharge the aquifer using spreading basins.

Upon request, Semitropic would return MWD's previously stored water, either by pumping water from its groundwater basin through pumpback facilities into the California Aqueduct or by providing MWD with an equivalent portion of its SWP water supply. To accomplish this program in-lieu service area, conveyance facilities, groundwater wells, and pumps will be constructed.

Based on distribution system modeling, which optimized surface and groundwater storage systems, the annual replenishment requirement for MWD's service area is approximately 1,100,000 acre-feet per year. Of that amount, 694,000 acre-feet can be stored in surface reservoirs. The remaining 406,000 acre-feet can be stored using groundwater conjunctive-use opportunities. Given this level of annual groundwater conjunctive-use requirements, Semitropic and MWD should provide adequate facilities to meet Semitropic's projected replenishment goals of 90,000 to 130,000 acre-feet per year and 140,000 acre-feet per year of production capacity.

The proposed project, combined with comprehensive water management programs, is intended to meet the needs of Semitropic and MWD from 1995 to 2020.

Following are key features of the project.

- *Maximum and minimum storage capacity:* Minimum storage capacity is 0; maximum is 1 million acre-feet; however, Metropolitan only plans to store 350,000 acre-feet.
- *Monthly water demands:* None. Water demands are variable and based on the availability of water.
- *Refill capacity:* 90,000 acre-feet per year at buildout.
- *Discharge capacity:* 0 to 140,000 acre-feet.

- *Available water:* Depends on the water year.

- *Availability of monthly water budget or diversion schedule:* There is no monthly water budget or diversion schedule. Diversion varies depending on the water year. In dry years, the project would take water; in wet years, put water.

- *Water diversion and use controls:* Water-year type.

Project Schedule: The draft EIR was released in March 1994. The final EIR was released in July 1994.

Project Status as of August 1996: The project is under construction and operating.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

Semitropic Improvement District of Semitropic Water Storage District and Metropolitan Water District of Southern California, 1994, Semitropic Groundwater Banking Project Draft EIR, State Clearinghouse Number 93072024, Wasco, California.

Bob Harding, Metropolitan Water District of Southern California, Phone 213/217-6582, Fax 213/217-7778, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Shasta Lake Enlargement

Lead Agency: U.S. Bureau of Reclamation

Project Description: An investigation was conducted between 1980 and 1985 by the U.S. Bureau of Reclamation and California Department of Water Resources to determine the feasibility of enlarging Shasta Dam and Reservoir. The investigation was not completed. The project would increase Shasta's storage by 9,750,000 acre-feet and develop an incremental Central Valley Project (CVP) yield of 1.45 million acre-feet per year at a cost of $1.4 billion dollars (1978 prices).

Project Schedule: Feasibility studies were started in 1980.

Project Status as of August 1996: The project is deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, 1993, Draft Report on Assessment of Past MP-Region, U.S. Bureau of Reclamation Planning Activities involving New Water Supplies, pp 20-22.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Shasta Temperature Control Device

Lead Agency: U.S. Bureau of Reclamation

Project Description: The project would construct a shutter device attached to the upstream face of Shasta Dam. The shutter device would provide for selective control of water withdrawals from Shasta Lake over a wide range of depths and temperatures. The project would allow cool-water releases to benefit winter-run chinook salmon in the Sacramento River during their spawning and incubation cycles. It also would allow for continued hydropower generation and release of warmer water when water temperatures are not critical. This operational pattern would conserve colder water for more critical time periods. The device also could be used for selective withdrawal to control turbidity and dissolved oxygen concentrations.

The U.S. Bureau of Reclamation has operated since 1987 under an interim plan for protecting the winter-run chinook salmon. The interim measure consists of a partial release from Shasta Lake at an outlet located lower than the Shasta power plant intake. The released flows bypass the power plant, which results in lost power and energy production. Power and energy replacement costs have totaled $8.8 million between 1987 and 1991.

In May 1990, the State Water Resources Control Board issued Decision 90-05, which defined temperature and flow requirements in the Sacramento River downstream from Shasta Dam. This decision also required that the Shasta Temperature Control Device be installed by December 1992. That date was amended to December 1994 in Decision 91-03.

Project Schedule: Currently being constructed.

Project Status as of August 1996: Currently being constructed.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

U.S. Bureau of Reclamation file documents.
Shasta Outflow Temperature Control Record of Decision, July 1991.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Sites Reservoir

Lead Agency: U.S. Bureau of Reclamation

Project Description: Sites Reservoir was proposed as an offstream pumped storage reservoir along the Tehama-Colusa Canal as part of the West Sacramento Canals Unit. Located on Funks and Stone Creeks upstream of Funks Reservoir, Sites Reservoir would have a gross storage capacity of more than 1.2 million acre-feet and would be created by the Golden Gate and Sites dams. The reservoir would be used for offstream storage of Sacramento River flows to allow expansion of the Tehama-Colusa Canal service area. The reservoir would inundate Antelope Valley from about 2 miles north of the Glenn-Colusa County line to about 5.5 miles south of the town of Sites, including the town of Sites. The reservoir pumping and power plants would be integrated into the CVP.

Project Schedule: The West Sacramento Canals Unit Reformulation Study was completed in 1981.

Project Status as of August 1996: The project has been deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, West Sacramento Canal Unit Feasibility Studies for Water Supply Development, 1962.

U.S. Bureau of Reclamation, West Sacramento Canal Unit Reformulation Plan, Concluding Report, 1981.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Sonora-Keystone Unit Studies

Lead Agency: U.S. Bureau of Reclamation

Project Description: This project would consist of development of the Sonora-Keystone Unit of the CVP to utilize available stream flows from the South Fork of the Stanislaus River, the North Fork of the Tuolumne River, and Sullivan Creek. The multipurpose project would include construction of Brownes Meadow Reservoir, enlargement of Phoenix Reservoir, and use of the existing Lyons Reservoir to meet existing and proposed agricultural, municipal, industrial, and recreational needs in Tuolumne County. Stage 1 of the project would develop 30,000 acre-feet of water, with a yield of 13,700 acre-feet for municipal and industrial purposes and 16,700 acre-feet for irrigation requirements to serve 4,860 acres of irrigable land. Stage 2 would involve construction of a second system of reservoirs and pipelines to meet projected water needs to 2020.

Project Schedule: A feasibility report prepared in September 1971.

Project Status as of August 1996: The project has been deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No. Construction of the proposed project would develop a separate CVP unit within Tuolumne County and would use those water resources, not existing CVP sources or systems.

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? No Construction of the proposed project would develop a separate CVP unit within Tuolumne County and would use those water resources, not existing CVP sources or systems.

Include Project in the Cumulative Impact Analysis? No

References:

Sonora-Keystone Unit, A Report of the Feasibility of Water Supply Development, Proposed, September 1971.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: South Sacramento Streams Study

Lead Agency: U.S. Army Corps of Engineers

Project Description: The project evaluates the need for and possible location of single-use flood control detention sites and multiuse flood control/recreation sites for detention of flood waters in the Sacramento Delta. The principal focus of the project is restoring 100-year flood protection in the Morrison Creek watershed, which includes Laguna and Alder Creeks.

Project Schedule: A reconnaissance study was completed in October 1994 and found a federal interest in the project. A feasibility study is underway and scheduled for completion by December 1997.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Ken Meyers, U.S. Army Corps of Engineers, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Spring Creek Toxicity Program

Lead Agency: U.S. Bureau of Reclamation

Project Description: The project would have raised the existing Spring Creek debris dam by 125 feet to increase the capacity of Spring Creek Reservoir, thereby reducing the number of uncontrolled releases of acid mine drainage into Keswick Reservoir and the Sacramento River during rainfall events.

This project is not likely to continue as a result of public comments received by the Environmental Protection Agency (EPA) on Water Management Feasibility Study, Public Comment, June 1994, which selected enlargement of the Spring Creek dam as the preferred remedial action at the Iron Mountain Mine Superfund site. EPA presented an alternate remedial action in Water Management Feasibility Study Addendum, Public Comment, May 1996, which proposes collection and treatment of acid mine drainage in the Slickrock Creek watershed upstream from Spring Creek rather than enlargement of the Spring Creek debris dam.

Other remedial actions implemented at the site include: copper cementation plants; construction of the Spring Creek debris dam in 1963; the 1980 Memorandum of Understanding between U.S. Bureau of Reclamation, State Water Resources Control Board, and California Department of Fish and Game; a partial cap above Richmond Mine; bypass diversions on Slickrock and Spring Creeks; and year-round collection and treatment of acid mine drainage that emanates from several mine portals.

Project Schedule: The environmental analysis was completed in July 1993. Enlargement of the Spring Creek debris dam is on hold indefinitely. The EPA is to respond to public comments on the May 1996 feasibility study addendum by October 1996.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No. It has no direct effect on water management.

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Ongoing

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. It has no direct effect on water management.

References:

U.S. Environmental Protection Agency, Public Comment, Remedial Investigation Report, Boulder Creek Operable Unit, Iron Mountain Mine, May 1992.

U.S. Bureau of Reclamation, Final Draft Iron Mountain Mine, Spring Creek Debris Dam Enlargement Environmental Analysis, July 1993, prepared for the U.S. Environmental Protection Agency.

U.S. Environmental Protection Agency, Water Management Feasibility Study, Public Comment, Iron Mountain Mine, June 1994.

U.S. Environmental Protection Agency, Water Management Feasibility Study Addendum, Public Comment, Iron Mountain Mine, May 1996.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Stanislaus River Basin and Calaveras River Water Use Program

Lead Agency: U.S. Bureau of Reclamation and California Department of Water Resources

Project Description: U.S. Bureau of Reclamation (Reclamation) and California Department of Water Resources (DWR) conducted a joint study (STANCAL) of the long-term uses of groundwater and surface water resources in the Stanislaus and Calaveras River basins. A conjunctive use plan was considered to manage both groundwater and surface water supplies to meet current and future in-basin and out-of-basin needs. Reclamation has a long-term, firm contract with Central San Joaquin Water Conservation District to provide a firm supply of 49,000 acre-feet per year. In a record of decision by the Commissioner of the Reclamation in 1981, this quantity was estimated to be the available remaining firm yield after meeting projected Stanislaus River Basin water needs for the year 2020. In addition to this firm supply contract, Reclamation has committed 75,000 acre-feet and 31,000 acre-feet of interim supply to Stockton East Water District and Central San Joaquin Water Conservation District, respectively. This water is scheduled to be delivered through the Farmington Canal and other facilities. It is anticipated that the interim water supply available will gradually decrease as development increases the in-basin requirements. Minimum downstream flows and water quality requirements also will reduce available water. DWR terminated its participation in the study in March 1995. Because study areas for STANCAL and the American River Water Resources Investigation overlap, Reclamation decided that information from the American River Water Resources Investigation met Central Valley Project Improvement Act requirements for determining existing and future basin water needs. Because of a lack of funding and the fact that the New Melones Reservoir Water Management Study - Short-Term was underway, a transition report was submitted. Based on the results of continuing New Melones Reservoir water management studies, Reclamation will decide whether a new planning study is appropriate.

Project Schedule: The scoping report was done in January 1991. In May 1996, a transition (completion) report was published. On August 8, 1996, notice was given in the Federal Register of cancellation for the environmental impact statement.

Project Status as of August 1996: The project has been completed.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? The project is completed.

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Stanislaus River Basin and Calaveras River Water Use Program, January 1991.

Program Participation Meeting handouts provided June 1993.

Transition Report: American River/Folsom South Conjunctive Use Optimization Study, May 1996.

David Lewis, U.S. Bureau of Reclamation, August 14, 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Stone Lakes National Wildlife Refuge

Lead Agency: U.S. Fish and Wildlife Service

Project Description: The Stone Lakes National Wildlife Refuge was established in October 1994 as the 505th unit of the National Wildlife Refuge System. The 18,000-acre refuge extends south along Interstate 5 from Upper Beach Lake to just north of the Mokelumne River. 5,500 acres are managed under an agreement between the County of Sacramento and the State of California. The U.S. Fish and Wildlife Service currently has fee title to 830 acres. The goals of the refuge are: to preserve, enhance, and restore Central Valley plant communities and wetlands; assist in the recovery of special-status species; create a link between refuge habitats; and provide environmental education.

Project Schedule: In the late 1980s, the Stone Lakes Refuge Alliance was formed. In 1988, Congress approved funding for the U.S. Fish and Wildlife Service to begin planning and coordinating the Stone Lakes Wildlife Refuge. The draft environmental impact statement (EIS) was issued in May 1991, and the final EIS and land protection plan were issued in April 1992. The purpose of the land protection plan was to identify specific tracts of land included within the acquisition boundary and describe how and why each tract should be protected. The land protection plan also identified acquisition and protection priorities and parcel ownership acreages.

Project Status as of August 1996: Additional land acquisition and restoration activities continue. The refuge has just received a $1,000,000 grant from the North American Wetlands Conservation Fund to acquire additional acreage by the end of this year. An additional 1,383 acres will be donated in 1997.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

Final EIS, Stone Lakes National Wildlife Refuge, Department of Interior, U.S. Fish and Wildlife Service, Pacific Region, May 1992.

Nina Bicknese, U.S. Fish and Wildlife Service, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Suisun Marsh Protection Plan

Lead Agency: U.S. Bureau of Reclamation and California Department of Water Resources

Project Description: Suisun Marsh is in southern Solano County, west of the Sacramento-San Joaquin Delta and north of Suisun Bay. This tidally influenced marsh is a vital wintering and nesting area for waterfowl of the Pacific Flyway and represents about 12% of California's remaining wetland habitat. This unique resource is the largest contiguous estuarine marsh remaining in the United States. In 1974, the California Legislature recognized the threat of urbanization and enacted the Suisun Marsh Preservation Act, requiring that a protection plan be developed for the marsh. In 1976, the Suisun Marsh Protection Plan was submitted to the governor and California Legislature. The plan proposed primary and secondary management areas, management policies, a local protection program, acquisitions, and funding programs. In 1977, the California legislature passed Assembly Bill 1717, which added the Suisun Marsh Preservation Act of 1977 to the Public Resources Code and legislated the protection measures outlined in the Suisun Marsh Protection Plan. In 1978, the State Water Resources Control Board (SWRCB) issued Water Right Decision 1485, which set channel water salinity standards for Suisun Marsh from October through May to preserve the area as a brackish tidal marsh and to provide optimum source water for waterfowl food production. Decision 1485 placed operational conditions on water right permits for the Central Valley Project (CVP) and the State Water Project (SWP), requiring that channel salinity standards be met. In 1984, in response to Order 7, the California Department of Water Resources (DWR) published the Plan for Protection for the Suisun Marsh; including the environmental impact report (EIR).

Components of the protection plan that have been completed are:

- Phase I (also referred to as "Initial Facilities")
  - Morrow Island Distribution System
  - Roaring River Distribution System
  - Goodyear Slough Outfall
- Phase II
  - Suisun Marsh Salinity Control Gates (also known as the "Montezuma Slough Control Structure")

The U.S. Bureau of Reclamation, DWR, the California Department of Fish and Game, and the Suisun Resource Conservation District have formed a Suisun Marsh Preservation Agreement Negotiation Team to update the 1987 Suisun Marsh Protection Agreement. Under the new conditions, the four large facilities identified in the Suisun Marsh Preservation Agreement that are not built will not be needed. The negotiation team identified 18 actions, 11 of which were

considered highly feasible. The negotiation team then advanced the 11 feasible actions to the SWRCB for inclusion in the EIR for implementation of the 1995 water quality control plan.

Project Schedule: This project is ongoing.

Project Status as of August 1996: This project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes for Phases I and II

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Jim Frederick, U.S. Bureau of Reclamation, 2800 Cottage Way, Room W-2103, Sacramento, CA 95825, Phone 916/978-5134, Fax 916/978-5284, August 1996, personal communication.

Kamyar Guivetachi, California Department of Water Resources, 3251 S Street, Room A-10, Sacramento, CA 95816, Phone 916/227-7529, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Tracy Pumping Plant Mitigation Program

Lead Agency: U.S. Bureau of Reclamation

Project Description: The Tracy Pumping Plant exports up to 4,600 cfs of water from the south Delta to the Delta-Mendota Canal. The pumping plant has a fish-collection facility to divert and salvage fish that could be entrained in the plant. The facility has been in operation since 1957. Salvaged fish are trucked to a point outside the influence of the pumping plant. The initial studies anticipated that 90% of the fish would be salvaged. However, actual salvage values have been less than anticipated, especially for striped bass. The fish collection facility does not meet current fish-screen Criterion. Changes since its construction in pumping activities (year-round versus partial years originally), debris loading, and additional species concerns all render the plant less effective for fish protection than originally designed. Furthermore, the plant has physically deteriorated, to the point that a major shutdown could occur, jeopardizing water deliveries to the Delta-Mendota Canal. No restoration funds have been identified until fiscal year 1998. Until then, the U.S. Bureau of Reclamation will continue the current Tracy Fish Collection Facilities Evaluation and Improvement Program, which began 5 years ago. The program is identifying and making physical improvements and operational changes, assessing fishery conditions, and monitoring salvage operations. In addition to assessing and improving the present facility, two approaches are under study: whether to continue to repair and maintain the existing facility or to replace it with a new one. While a number of improvements have been made and others planned, long-term resolution will require coordination with all agencies involved in an effort similar to the Red Bluff Diversion Dam Fish Passage Program to determine which technologies and strategies should be considered.

Project Schedule: The project consists of six actions. Action 1 has been ongoing since 1990 and is scheduled to continue beyond the start of fiscal year 1998. The other actions will be initiated and should end during this time period.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Studies, monitoring, and evaluation have been occurring.

Criterion 2. Does the action have funding for implementation? Partial. Energy and water funding is being used but no restoration funds are available until 1998.

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

U.S. Bureau of Reclamation and California Department of Fish and Game, Agreement to Reduce and Offset Direct Fish Losses Associated with the Operation of the Tracy Pumping Plant and the Tracy Fish Collection Facility, 1992.

Herbert Ng, U.S. Bureau of Reclamation, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Trinity River Restoration Program

Lead Agency: U.S. Bureau of Reclamation

Project Description: Passage of the Trinity River Basin Fish and Wildlife Restoration Act (PL 98-54)1 in October 1984 provided for a 10-year program to restore fish and wildlife resources to preCVP levels. The program was legislated to continue until 1995 and was reauthorized to through September 30, 1998. Major features of the program include construction of Buckhorn Dam and a sediment control facility, modernizing the Trinity River Fish Hatchery, habitat improvement projects in the Trinity River and its tributaries, and watershed stabilization projects to reduce sedimentation of streams. The project is being completed with the assistance of a task force consisting of representatives from 14 federal, State, and county entities and the Hoopa Valley Indian Tribe. Construction of the CVP Trinity River Division facilities resulted in the loss of about 20,000 acres of deer habitat and over 100 miles of salmon and steelhead habitat. The purpose of the program is to restore natural fish populations below the dam.

Project Schedule: The restoration program is ongoing.

Project Status as of August 1996: The restoration program is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? Yes

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? Yes

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No. The project is included in the No-Action Alternative.

References:

Klamath and Trinity River Restoration Initiatives, April 1993.

U.S. Bureau of Reclamation, Status of the Trinity River Restoration Program, August 1990.

Russell Smith, U.S. Bureau of Reclamation, August 15, 1996, personal communication.

U.S. Fish and Wildlife Service, Trinity River Basin Fish and Wildlife Management Program, Final EIS, 1983.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Upper Sacramento River Fisheries and Riparian Habitat Study

Lead Agency: U.S. Fish and Wildlife Service and U.S. Bureau of Reclamation

Project Description: The Upper Sacramento Fisheries and Riparian Habitat Advisory Council was established in 1986 by Senate Bill 1086. The bill called for preparation of a management plan to protect, restore, and enhance the fish and riparian wildlife habitat of the upper Sacramento River. A report of the Council's findings was prepared by The Resources Agency and presented in 1989. A development plan presented in the report identified two action items to protect and restore riparian habitat and 20 action items to resolve fishery problems along the main stem of the Sacramento River and its tributaries. Proposals included in the plan range from cleanup of the Iron Mountain Mine near Redding and reconstruction of the Coleman National Fish Hatchery to construction of fish ladders and screens on tributary streams. Collectively, the 20 fishery action items are called the Fisheries Restoration Plan.

The advisory council was reconvened in August 1992 and formed a Riparian Committee to delineate a riparian conservation eligibility area between Keswick Dam and the Feather River confluence and to develop a riparian conservation area management plan, management entity, and enabling agreements. A draft delineation of the riparian conservation eligibility area was completed in September 1995 and encompasses 213,000 acres; about 40% of the riparian forest acreage that bordered the Sacramento River prior to settlement. The reach between Keswick and Red Bluff includes some 22,000 acres of existing riparian habitat encompassed by the 100-year flood line and areas of contiguous valley oak woodland. Reach 2, from Red Bluff to Chico Landing, includes about 58,000 acres, of which 12,000 to 15,000 acres is designated as potential inner-river meander zone habitat. In this meander zone, natural river processes of erosion and deposition would be allowed to occur and management would be geared toward creating successional habitats with enough time to result in climax communities. Reach 3, from Chico Landing to Colusa, includes about 76,000 acres, confined largely by the Sacramento Flood Control Project and the Sacramento River Bank Protection Project. Reach 4, Colusa to Verona, contains about 57,000 acres, including all areas between project levees and alluvial areas up to a mile from the river.

The management plan is being written by staff of the California Department of Water Resources' Northern District with input from members of the riparian committee. As currently proposed, a local nonprofit organization, directed by a 15-member board, would be created through Memoranda of Understanding or Agreement between the agencies with management responsibility in the area.

Project Schedule: The fishery restoration components of the plan are being implemented under more recent plans, including the California Department of Fish and Game's Restoring Central Valley Streams: A Plan for Action, issued in November 1993, and the federal Draft Anadromous Fish Restoration Plan, released in December 1995. Completion of development of a nonprofit management organization and enabling agreements is scheduled for mid-October 1996.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Partially

Criterion 2. Does the action have funding for implementation? Partially

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No. Many of the actions in the plan are being considered for implementation by CALFED.

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Resources Agency, Upper Sacramento River Fisheries and Riparian Habitat Management Plan, January, 1989.

Paul Ward, California Department of Fish and Game, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Watsonville (Pajaro Valley Basin) Management Plan

Lead Agency: U.S. Bureau of Reclamation and Pajaro Valley Water Management Agency

Project Description: A basin management plan was developed to address seawater intrusion from Monterey Bay into the coastal aquifer of the Pajaro Valley. Ongoing projects include development of a data management system, a Pajaro Valley groundwater - surface water finite element model, evaluation of more than 30 supplemental water supply sources and demand management measures, and evaluation of future water needs. A final draft best management plan was prepared in September 1993. A key element of the plan called for import of Central Valley Project (CVP) water through the San Felipe Division. However, the pipeline from the San Felipe Project has not been extended to the Pajaro Valley Water Management Agency system, and due to passage of the Central Valley Project Improvement Act (CVPIA), Pajaro Valley Water Management Agency will have to wait until the terms and conditions of the CVPIA are met before water can be imported to them.

Project Schedule: The project is ongoing.

Project Status as of August 1996: The project is ongoing. The U.S. Bureau of Reclamation is preparing to go to the State Water Resources Control Board to expand the use of CVP water to include Pajaro Valley Water Management Agency.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

Pajaro Valley Water Management Agency, basin management plan and related previous studies, September 1993.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: West Delta Water Management Program

Lead Agency: California Department of Water Resources

Project Description: West Delta water management planning has focused on a number of Delta problems. First is installation of an overland water supply facility on Sherman Island. This overland facility, to be funded by the State Water Project, would address the water supply needs only of Sherman Island. Other issues and programs have also come into focus and reshaped and broadened the western Delta planning perspective. An unstable agricultural economy, continuing problems of subsidence, levee instability, and loss of wetland and riparian habitats have necessitated a more comprehensive planning approach.

Implementation of this program involves the following main elements:

- amending the 1981 agreement between North Delta Water Agency and the California Department of Water Resources (DWR),
- acquiring land on both islands (the initial study and negative declaration was completed for Sherman Island in January 1990 and for Twitchell Island in May 1993),
- implementing the Sherman Island Wildlife Management Plan and the Twitchell Island Wildlife Management Plan,
- improving threatened levees on both islands as part of the State's Delta Flood Control Act of 1988 levee program,
- securing Memoranda of Agreement from State and federal permitting agencies, and
- completing a detailed, acre-by-acre final design.

North Delta Water Agency and DWR signed an agreement in 1981 to ensure that the State will maintain a water supply that is dependable and of adequate quality for agricultural uses within the boundaries of the agency's system. The agreement provides for installation of an overland facility to provide a dependable water supply on Sherman Island. The alternative under consideration is the Sherman Island Wildlife Management Plan. Final design of the overland facility is subject to approval by North Delta Water Agency and by Sherman Island's Reclamation District 341 as reflected in the contract, and a contract amendment is required to allow approval of the Wildlife Plan by Reclamation District 341 and North Delta Water Agency. To implement the Sherman Island Wildlife Management Plan, the 1981 contract must be amended to allow the plan to be substituted for the overland facility.

The proposed land acquisition phase is part of the joint program between DWR and the California Department of Fish and Game (DFG) to implement the wildlife management plans. The land acquisition process consists of property selection and appraisal, acquisition of purchase options, and subsequent purchase of fee simple and/or possibly easements to establish wildlife habitat on Sherman Island. Once sufficient acreage has been acquired to implement the plan, all landowners willing to participate in the project are offered a purchase option for their property.

DWR purchased more than 3,000 acres of land on Twitchell Island (approximately 80% of the island) in 1993. During this interim period, State-owned lands are being managed for agriculture on 70% and grazing on the remaining 30%. DWR also purchased 870 acres on Sherman Island.

Implementation of the wildlife management plans will be accomplished in several stages. Currently, the properties are being managed as grazing land and/or agriculture. DWR is also investigating the possibility of limited, managed hunting programs prior to development of wildlife habitat. In the future, a wetland/riparian/upland complex of habitats will be constructed for the benefit of wintering waterfowl and an array of wildlife species. Habitat management will:

- emphasize development of wetland, riparian, and upland habitats to maximize wildlife benefits;
- maintain the island's integrity by reducing the rate of soil subsidence and thereby reducing the probability of flooding;
- manage agricultural crop production to minimize subsidence and provide flood and other resources for wildlife while using the most cost-effective methods possible; and
- effectively manage the island for wildlife.

A Memorandum of Agreement for use of Twitchell Island for wildlife management and potential mitigation for impacts of the department's projects in the Delta was completed between DWR and DFG on November 6, 1991. The U.S. Fish and Wildlife Service was contacted before proceeding with a final plan.

Project Schedule: The project is ongoing. DWR is actively pursuing land acquisitions and negotiations with water users.

Project Status as of August 1996: The project is ongoing. A small-scale (100-acre) habitat improvement pilot program is scheduled to begin in September 1996.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? No

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

California Department of Water Resources/North Delta Water Agency Agreement, 1981.

South Delta Water Management Program Draft EIR/EIS, June 1990.

California Department of Water Resources, Initial Study and Negative Declaration for Proposed Twitchell Island Wildlife Management Plan, May 1993.

Mike Ford, California Department of Water Resources, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: West Sacramento Project

Lead Agency: U.S. Army Corps of Engineers

Project Description: This project will raise 4.9 miles of levee, starting with the reach along the Sacramento Weir, proceeding along the Sacramento Bypass to its intersection with the Yolo Bypass, and then continuing along the Yolo Bypass to its intersection with the Deep Water Ship Channel. The environmental impact statement/environmental impact report (EIS/EIR) designated a preferred mitigation site in an area between the ship channel and the east levee of the Yolo Bypass. The project is designed to provide 400-year flood protection to the City of West Sacramento.

Project Schedule: The final EIS/EIR, prepared in cooperation with the State of California, was completed in 1992. A design memorandum was completed in May 1995 and approved by the Office of the Secretary of the Army for Civil Works in March 1996.

Project Status as of August 1996: The project plan and specifications will be completed by December 1996. After a two-month period of technical review, the project should be advertised some time in March 1997.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Yes

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? Yes

Criterion 4. Does the action have final permits and approvals? Yes

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No. The project would not directly affect SWP or CVP water management.

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Yes

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? Yes

References:

U.S. Army Corps of Engineers and California State Reclamation Board, Sacramento Metropolitan Area, California, Feasibility Report and EIR/EIS, February 1992.

John Brown, U.S. Army Corps of Engineers, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Western Energy Expansion Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: A study was conducted to identify and evaluate increased electrical power and energy generation opportunities in 17 western states. The study focused primarily on development of hydropower, including pumped storage. Thirty-four hydroelectric projects were identified, of which three were within the California Mid-Pacific Region: the Monticello, Whiskeytown, and Friant power plants. Other projects evaluated with the Mid-Pacific Region included the San Luis Solar Generation Study; the Pumped Storage Inventory Study; and upgrading of the Trinity generator and turbine, the Carr turbine, the Spring Creek generator and turbine, the Keswick turbine, the Shasta turbine, and the Folsom turbine. The benefit-cost ratios for the Monticello, Whiskeytown, and Friant power plant improvements were favorable, ranging from 1.74:1.00 to 1.92:1.00. Ratios for the other projects were not provided.

Project Schedule: The report was prepared in February 1977.

Project Status as of August 1996: The project has been completed.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? The report was prepared in February 1977.

Criterion 2. Does the action have funding for implementation? Not applicable

Criterion 3. Does the action have final environmental documentation? Not applicable

Criterion 4. Does the action have final permits and approvals? Not applicable

Criterion 5. Will the action be excluded from the CALFED actions? Not applicable

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? The report was prepared in February 1977.

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? No

Include Project in the Cumulative Impact Analysis? No

References:

Report on the Western Energy Expansion Study, February 1977.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Western Sacramento Canals Unit

Lead Agency: U.S. Bureau of Reclamation

Project Description: The West Sacramento Canals Unit, as initially proposed in 1964, would have extended the CVP service area into Yolo and Solano Counties. Water would have been provided through an extension of the Tehama-Colusa Canal and the following facilities would have been added: Sites Reservoir and pumping/generating plant; Oat Reservoir; Noonan Reservoir; Middletown Reservoir; and the West Sacramento Valley, Yolo-Zamora, and Lake Solano Canals. The Unit was revised in 1969, to a recommended alternative similar to the original configuration. In 1977, when construction of the Tehama-Colusa Canal was nearing completion, the unit was revised again. The reformulation plan included larger reservoir sizes at Sites, Oat, and Noonan. A preliminary cost-benefit analysis in a 1981 report indicated that the West Sacramento Canals Unit was not economically feasible at that time.

Project Schedule: The project was deferred.

Project Status as of August 1996: The project was deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Bureau of Reclamation, West Sacramento Valley Canals Unit Formulation Plan, 1964.

U.S. Bureau of Reclamation, West Sacramento Valley Canals Unit Revised Formulation Plan, 1969.

U.S. Bureau of Reclamation, West Sacramento Valley Canals Unit Reformulation Plan, Concluding Report, 1981.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Westlands Water District - Conveyance of Nonproject Groundwater Using the California Aqueduct

Lead Agency: Westlands Water District and Mendota Pool Group

Project Description: The proposed project would discharge a maximum of 78,000 acre-feet annually of nonproject groundwater that meets State and federal drinking water standards and is pumped via privately owned pipelines direct from the participating well to the Mendota Pool. Groundwater blends with Mendota Pool water and is conveyed through Westland Water District laterals 6 and 7 to the California Aqueduct. Flows into the Mendota Pool and California Aqueduct are metered by Westlands Water District and verified by the California Department of Water Resources. CVP water credits are given to qualified farmers who participate in the program and are provided as water stored in San Luis Reservoir.

Project Schedule: The environmental impact report (EIR) was prepared and distributed in October 1995. The final EIR has not yet been prepared.

Project Status as of August 1996: The final EIR needs to be approved and certified by Westlands Water District. The project is on hold until further notice based on discussions with a Mendota Pool Group representative.

Project Schedule: Draft EIR was released in October 1995.
Final EIR has not yet been prepared.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Jones & Stokes Associates, 1995, EIR on conveyance of nonproject groundwater from the Mendota Pool Area using the California Aqueduct.

John Bryner, Mendota Pool Group representative, Phone 209/498-5815, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Westlands Water District - Conveyance of Nonproject Groundwater from the Mendota Pool Area Using the California Aqueduct

Lead Agency: Westlands Water District and the Canalside Group

Project Description: Westlands Water District is serving as lead agency for a groundwater conveyance project proposed by the Canalside Group. The proposed project involves a system of wells located along the California Aqueduct that would discharge directly into the aqueduct. This project would pump a maximum of 150,000 acre-feet per year.

Project Schedule: Draft environmental impact report (EIR) was released for public review in October 1995.
Final EIR has not yet been released.

Project Status as of August 1996: The project is ongoing.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for the CALFED analysis? Yes

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? Yes

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Jones & Stokes Associates, Inc., EIR on Conveyance of Nonproject Groundwater using the California Aqueduct, October 1995.

Dale Melville, Canalside Group, Phone 209/449-2700, August 1996, personal communication.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Whiskeytown Power Plant

Lead Agency: U.S. Bureau of Reclamation

Project Description: During the late 1970s, the Department of Interior was seeking means to supplement power production capabilities in the western United States. Among the alternatives considered was development or expansion of hydroelectric power generation capabilities at CVP dams. An appraisal study was conducted by the Water and Power Resources Service (currently the U.S. Bureau of Reclamation) describing the addition of a power plant at Whiskeytown Dam. The plant would be constructed at the downstream discharge and would have a maximum electric power generation capacity of 3,000 kilowatts. Due to the proximity of Whiskeytown Dam to other CVP hydroelectric generation facilities, it would be possible to provide a dependable capacity of 2,700 kilowatts. These estimates were based on no changes occuring in operation of the dam, which includes reduced downstream releases during some months. The plant was recommended for construction in 1979 but has not been authorized to date.

Project Schedule: The project has been deferred.

Project Status as of August 1996: The project has been deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Yes

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

U.S. Water and Power Resources Service, Whiskeytown Power Plant, An Appraisal Report on Adding Hydroelectric Powerplants at Whiskeytown Dam, 1979.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Wind-Hydro Opportunities Study

Lead Agency: U.S. Bureau of Reclamation

Project Description: The study was conducted to identify opportunities to integrate wind and hydroelectric power generation in the Mid-Pacific Region. Siting and power studies were to be evaluated for the Delta and San Luis Reservoir vicinity. If the study proceeded to the demonstration phase, results would be monitored to determine the benefits and costs of wind power generation and the effects, if any, on the CVP's dependable power generation capacity. Three general areas were proposed for power generation studies: the Delta between Carquinez Straits and Fairfield, the vicinity of Altamont Pass near Livermore, and the vicinity of Pacheco Pass. These areas have since been developed for wind power generation.

Project Schedule: A report was prepared in February 1977. The capability study was submitted in January 1979.

Project Status as of August 1996: The project has been deferred.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? Not applicable

Criterion 2. Does the action have funding for implementation? Not applicable

Criterion 3. Does the action have final environmental documentation? Not applicable

Criterion 4. Does the action have final permits and approvals? Not applicable

Criterion 5. Will the action be excluded from the CALFED actions? Not applicable

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? Not applicable

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? No

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? No

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? No

Include Project in the Cumulative Impact Analysis? No

References:

A Proposal for a Study on Wind-Hydro Opportunities in the Mid-Pacific Region, California, April 1978.

Projects Considered in Development of the No-Action Alternative and Cumulative Impact Analysis

Project Name: Yolo Bypass Westside Tributaries Study

Lead Agency: U.S. Army Corps of Engineers

Project Description: The project is currently in the reconnaissance phase. The purpose of the project is to identify feasible flood control alternatives for selected drainage areas of Bear, Cache, and Putah Creeks. Specific alternatives include locating and sizing new structural and nonstructural flood control solutions. Some of the structures under consideration include detention basins on Cache and/or Bear Creek and levee protection for Dry Slough, Willow Slough, or lower Woodland areas. Nonstructural or site-specific levees around water/wastewater treatment facilities are also included.

Project Schedule: The reconnaissance study was initiated in 1993. The next phase, completion of the feasibility study, depends on the recommendations of the reconnaissance study and on identification of a cosponsor (presumably Yolo County) for 50 percent of the project costs.

Project Status as of August 1996: The U.S. Army Corps of Engineers is currently updating its project study plan. There is no firm timeline for when (or if) the study will enter the feasibility phase.

CALFED No-Action Screening Criteria

Criterion 1. Has the action been approved for implementation? No

Criterion 2. Does the action have funding for implementation? No

Criterion 3. Does the action have final environmental documentation? No

Criterion 4. Does the action have final permits and approvals? No

Criterion 5. Will the action be excluded from the CALFED actions? Probably

Criterion 6. Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis? No

Include Project in the No-Action Alternative? No

CALFED Cumulative Effects Screening Criteria

Criterion 1. Is the action under active consideration? Yes

Criterion 2. Does the action have recently completed environmental documentation or are environmental documents in some stage of active completion? No

Criterion 3. Would the action be completed and operational within the timeframe being considered for the CALFED Bay-Delta Program (assumed to be 2020)? Possibly

Criterion 4. Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources? Yes

Include Project in the Cumulative Impact Analysis? No

References:

Larry Johnson, U.S. Army Corps of Engineers, August 1996, personal communication.

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